



AMUCON-2022

**4th Annual National Conference
of Association for Medical Updates**

SOUVENIR

11th to 13th March 2022
Geetanjali Medical College & Hospital, Udaipur



या कुन्देन्दुतुषारहारधवला या शुभ्रवस्त्रावृता
या वीणावदण्डमण्डितकरा या श्वेतपद्मासजा
या ब्रह्माच्युतशंकरप्रभृतिभिर्देवः सदा पूजिता
सा मां पातु सरस्वति भगवती जिः शेषजाड्यापहा

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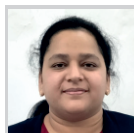
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From the Editorial desk....

Dear Friends, Colleagues, and delegates,
Greetings on behalf of organizing committee
Wish you all a fulfilling and academically satisfying year ahead

I am glad that we have this opportunity to organize the 4th Annual National Conference of Association for Medical Updates on 11th - 13th March 2022. I take this opportunity to welcome learned speakers, delegates and their spouse coming to Udaipur from all parts of country.

The goal of this conference is to provide a forum for interchange of knowledge and updates from various branches of medical field. Researchers from different field are invited to gather and present their work amongst fellow medical professionals. Research, updates and knowledge from this conference and souvenir is expected to spread and get imbibed into different strata of medical field.

This e-souvenir is the result of efforts of the whole editorial team and the organizing team. We thank all our well wishers and supporters without whom it would be an impossible task.

Once again on behalf of the members of organizing committee I extend a warm welcome to all of you and hope you will enjoy the academic fiesta at this conference as well as going through the souvenir.



Dr. Apurwa Agarwal



Dr. Arvind Yadav



Dr. Jitendra Jeenger

E-Souvenir

AMUCON-2022

*4th Annual National Conference of
Association for Medical Updates*



Geetanjali Medical College & Hospital, Udaipur
11th to 13th March, 2022

CONFERENCE SCHEDULE

DAY – I : 12th MARCH 2022

Time	Topic	Speaker
08.00 AM	Registration and Breakfast	
08.00 AM - 09.00 AM	Oral Paper Session	Judges
09.00 AM - 10.00 AM	Symposium : • Professionalism and Ethics in Medical Education	Dr Dinesh Badyal
	• Subteleties of Integration as potent Tool for enhancing creativity	Dr Dinesh Puri
	• S-I-R approach for AETCOM and understanding reflective writing model	Dr Neeraj Mahajan
	• Changing Scenario in Medical Education	Dr Manjinder Kaur
10.00 AM - 10.15 AM	Prognostication in Breast Cancer	Dr Ashish Jakhetiya
10.15 AM - 10.45	Innovation: Need of the time for India	Dr Sarman Singh
10.45 AM - 11.30 AM	Award Paper Session	Judges
11.30 AM - 12.00 NOON	Yoga and Human Health	Dr B.N. Gangadhar
12.00 NOON - 01.00 PM	Inauguration + Organ Donation : Pledge	
01.00 PM - 02.00 PM	Lunch	
02.00 PM - 05.00 PM	Poster & Paper Presentation Session	
06.30 PM ONWARDS	Gala Dinner & Cultural Night	

Gala Dinner & Cultural Night

12 March 2022

6.30 Onwards



Bhairavgarh Resort & Spa

Maharana Pratap Khel Gaon, 200 ft Road,
Opposite R.T.O Chitrakoot Nagar, Bhuwana,
Udaipur, Rajasthan 313001

DAY – II : 13th MARCH 2022

Time	Topic	Speaker
09.00 AM - 09.30 AM	Registration and Breakfast	
09.30 AM - 11.00 AM	Best Poster Award & Oral Paper Presentation PG Quiz - Preliminary Round	
11.00 AM - 11.15 AM	Quality Assurance in Clinical Laboratory	Dr Anita Sharma Dr Shikha Malhotra
11.15 AM - 11.30 AM	Chrono Medicine	Dr Arvind Yadav
11.30 AM - 11.45 AM	Liquid Biopsy and its clinical applications in Cancer	Dr Jatinder Bhatia
11.45 AM - 12.00 NOON	Artificial Intelligence in Medical Science	Dr Dhaval N Joshi
12.00 NOON - 12.30 PM	Patient based Quality Control Excellence using Digital Solutions	Mr Amit Manjure Mr Vikram Duggal
12.30 PM - 01.30 PM	Final PG Quiz	Dr. Manu Sharma
01.30 PM - 02.30 PM	Lunch	
02.30 PM - 04.30 PM	Poster and Paper Presentation Session	
04.30 PM - 05.00 PM	Valedictory Function	



MESSAGES

MESSAGE



It is a matter of pleasure for me to note that the Geetanjali Medical College & Hospital is organizing the 4th Annual National Conference of Association for Medical Updates at GMCH from 11th to 13th March 2022.

It is also heartening to note that in these three days' conference, about 300 delegates from all over the country would be participating.

I wish all the success to organizing team of 4th Annual National Conference of Association for medical Updates.

J.P. Agarwal

Chairman
Geetanjali Group of Institutes

MESSAGE



Geetanjali Medical College & Hospital is organizing the 4th Annual National Conference of Association for Medical Updates on 11th to 13th March, 2022 and I am glad that about 300 Delegates from all over the country would be participating in this three days conference.

It is heartening to note that a E Souvenir is being published in commemoration of the occasion.

I take this opportunity to congratulate you and your team members and wish the AMUCON-2022 a grand success.

Ankit Agarwal
Executive Director
GMCH, Udaipur

MESSAGE



It gives me immense pleasure to know that the Geetanjali Medical College & Hospital, Udaipur is organizing the 4th Annual National Conference of Association for Medical Updates on 11th to 13th March, 2022.

I extend a warm welcome to all esteemed guests, learned delegates and faculty members.

The medical science and technology is developing so fast that it is essential for the doctors to keep themselves updated in this field. I firmly believe that such conferences and CMEs can reduce the gap between doctors and knowledge, and their academic activities also provide the platform to exchange the views with the other colleagues for improvement in medical profession.

I wish the conference a great success and a memorable event.

Dr. F. S. Mehta
President
Geetanjali University, Udaipur

MESSAGE



It gives me pleasure to learn that Geetanjali Medical College & Hospital is going to organize the 4th Annual National Conference of Association for Medical Updates on 11th to 13th March, 2022.

The theme of the conference -INNOVATION & HEALTH, is relevant to the current research and development in medical field.

I am sure in the presence of expert speakers around the country, this conference will provide new perspectives for addressing basic and clinical questions and would workout future direction for research in this area.

I extend my heartiest congratulations to the organisers and wish AMUCON-2022 all success.

Dr. Narendra Mogra

Dean

Geetanjali Medical College & Hospital, Udaipur

MESSAGE



It gives me immense pleasure to congratulate the organisers for conceiving and implementing such a wonderful and relevant theme for the upcoming Annual conference AMUCON 2022.

I feel very happy to be associated with 'The Association of Medical Updates', which not only brings all the medical and surgical disciplines on one platform, but also gives a special focus to the advances in medical education technologies.

It is an unique endeavor where faculty and students from all specializations can showcase their recent advances to each other, for more holistic approach to medicine.

I wish the organising team a grand success in conveying their message to the participants.

Dr Manjinder Kaur
Additional Principal
Geetanjali Medical College & Hospital

MESSAGE



It gives me immense pleasure that Geetanjali Medical College & Hospital is organizing the 4th Annual National Conference of Association for Medical Updates on 11th to 13th March 2022.

The theme of the conference - "Innovation and Health", is a very relevant topic to the recent devolvement and research in medical sciences.

I congratulate the organizing team and wish them for the great success.

Dr. (Col.) Sunita Dashottar
Medical Superintendent
Geetanjali Medical College & Hospital

MESSAGE



Geetanjali Medical College & Hospital, Udaipur a constituent Institute Geetanjali University is pioneer in South Rajasthan and has created a space for itself on the Medical Education map of India by its high level of Academic Excellence. I feel very proud of the Institution for the reputation it has acquired as a vibrant center due to Clinical Talent.

It is indeed a matter of pleasure 4th Annual International Conference of Association of Medical Updates is Organizing another edition with rightful theme of “Innovation & Health”.

The rapid advances in Medicine and technology and more so post pandemic, have necessitated the need to ponder over knowledge and skills; leadership, management, organization, teaching and mentoring capabilities. The topics chosen for the conference are very timely and relevant. In this context, this conference will be able to create new consciousness about the possible changes that are needed to be adopted or acquired.

I hope the conference enhances professionalism and capabilities of all the participants which promotes towards the future advancement of our profession. I wish the conference a great success and prosperous future of the Professionals attending the Conference.

My congratulations to the Organizing Committee and team for organizing this events.

Prateem Tamboli
Chief Executive Officer
Geetanjali Medical College & Hospital

MESSAGE



On behalf of the organizing committee. I would like to express my deep sense of gratitude to all the delegates, who are coming from various parts of the country, for accepting our invitation to attend the conference. I extend a hearty welcome to you all. It is indeed a proud moment for all of us to be organizing this mega academic event in our institution.

I am sure all of you will cherish your stay at lake city Udaipur, the city not only known worldwide for lakes, fort, beauty but also for its warmth, well come & hospitality.

After all the hard days work we have great gastronomic feast to tickle your taste buds mixed with great entertainment to make your stay at Udaipur, most memorable.

Dr. Ashish Sharma
Organizing Secretary
AMUCON-2022, UDAIPUR



**ABSTRACT
AWARD
PAPER**

AWP. 01

CLASSIFICATION OF COVID 19 PATIENTS INTO MILD, MODERATE AND SEVERE ON THE BASIS OF MEAN CORPUSCULAR VOLUME AND RED CELL DISTRIBUTION WIDTH PARAMETERS

Dr Prashant Yadav, Dr R.K. Samar

Department of General Medicine, Pacific Institute of Medical Sciences, Udaipur

Background: Corona virus is a zoonotic RNA virus that broke out in Wuhan, China, in December 2019 with clinical manifestation of fever, common cold and dyspnoea and severe cases reported with septic shock, metabolic acidosis, coagulation dysfunction and multiorgan failure.

Aims: To classify the covid-19 patients into mild, moderate and severe on the basis of mean corpuscular volume and red cell distribution width parameters.

Methodology: In a sample size of 30 patients with RTPCR positive, detailed history of clinical features taken including fever, cough, anosmia, shortness of breath etc. Patients were advised for Radiological (HRCT thorax) and haematological {CBC (MCV, RDW)} investigations. And with the help of these investigations' and WHO severity criteria patients were classified into mild, moderate and severe category.

Results: 30 COVID-19 RT-PCR positive patients, 16 patients (53.3%) are categorised under severe group due to increased RDW and decreased MCV. 14 patients (46.6%) are categorised under mild to moderate category with normal MCV and RDW values.

Conclusion: Through this study MCV and RDW are proved to be 2 important haematological parameters as good prognostic and severity indicator which categorises patients into mild, moderate and severe groups that will help in early diagnosis and treatment.

AWP. 02

VITAMIN D STATUS AND ITS ASSOCIATION WITH DISEASE ACTIVITY IN EARLY RHEUMATOID ARTHRITIS IN RURAL POPULATION OF SOUTHERN RAJASTHAN

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Background: Rheumatoid arthritis (RA) is a chronic inflammatory disease characterized by joint pain swelling, joint tenderness and destruction of synovial joints, leading to severe disability and premature mortality. Early RA is defined as “RA with duration of disease/symptoms of disease < 6 months”.

Aim: Vitamin D status and its association with disease activity in early rheumatoid arthritis in rural population of Southern Rajasthan

Methodology: It is a case-control study, all patients fulfilling revised American College of Rheumatology criteria/EULAR criteria (2010) for Rheumatoid Arthritis being attended to in the rheumatology clinic, Tools like Oral questionnaire, History and Clinical examination, laboratory equipments will be used. Sample size is 45 cases and 45 controls, complying with inclusion and exclusion criteria.

Result and Conclusion: The study suggested that, mean value of Clinical Disease Activity Index (CDAI) of RA was 12.24 ± 8.05 in cases and 2.89 ± 0.83 in control, DAS28 Score was 4.24 ± 1.07 in cases and 3.00 ± 0.37 in control, it showed statistically significant association between serum vit D3 level with CDAI and DAS28 Score in rheumatoid arthritis patients. The study results suggest that the inverse relationship between serum D levels and RA disease activity.

Keywords: Rheumatoid arthritis, Vitamin D, Disease activity

AWP. 03

SPLIT-FACE COMPARITIVE STUDY OF MICRONEEDLING WITH & WITHOUT PLATELET-RICH PLASMA IN TREATING POST-ACNE ATROPHIC SCARS

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Background: Acne vulgaris often causes permanent scarring of the face, of which atrophic acne scars appear more commonly than hypertrophic scars (3:1). Several treatment modalities have been proposed to improve the appearance of acne scars, yet no reliably effective modality is available up to date.

Aim: To compare the efficacy of injection of platelet-rich plasma (PRP) with microneedling versus microneedling alone in post-acne atrophic scars.

Methodology: 35 patients were given microneedling alone on half face (Left side) and injected with PRP followed by microneedling on other half (Right side). Patients were given 3 needling treatments at 3-week interval for 9 weeks and scored by Goodman and Baron's quantitative Acne Scar Grading System (Objective) and Patient's Satisfaction Score (Subjective).

Results: Marked improvement was seen in 14(40.00%) patients on right side and 6(17.14%) patients on left side, Moderate improvement was seen in 16(45.71%) patients on right side and 21(60.00%) patients on left side, and Mild improvement was seen in 5(14.29%) patients on right side and 8(22.86%) patients on left side.

Conclusion: PRP along with microneedling would intensify the natural wound healing cascade because of the high concentration of patients own growth factors. Therefore, this study concludes that PRP combined with microneedling is a better treatment option than microneedling alone in treating post-acne atrophic scars.

AWP. 04

IDENTIFICATION OF SPECIES OTHER THAN CANDIDA ALBICANS FROM CASES OF NEONATAL CANDIDEMIA AND CLINICAL MANIFESTATIONS ASSOCIATED WITH THEM

Dr Samarth, Dr Vivek Parasher
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Background: Candidemia refers to presence of candida species in neonatal septicemia. It is a significant cause of mortality and morbidity in neonatal intensive care unit. Candidiasis may be a primary or secondary fungal infection by a member of genus candida. Candidiasis may be localised to oral cavity, throat, skin, scalp, nails ,fingers ,vagina ,bronchi, lungs or the GI track , or become systemic as in septicaemia in endocarditis and meningitis .

Aim: To identify species other than candida albicans from cases of neonatal candidemia and clinical manifestations associated with them

Methodology: The study group comprised of 79 clinical suspected cases of neonatal septicaemia admitted in NICU of Pacific institute of medical sciences over a period of one year were studied. Informed consent was taken from the parents of the neonates before collection of clinical samples.

Results: Non–albicans candida (NAC) species were isolated from blood in 86.4% cases of neonatal candidemia compared to candida albicans in 13.6. Among the various isolates, candida glabrata (39%) was predominant species causing neonatal candidemia followed by c. tropicalis (26%) , c.parapsilosis(14.5%),c. albicans (13.6%) ,c. guilliermondii (2.7%) ,c. krusei (1.8%) ,c. dubliniensis(0.9%) and c. lusitaniae (0.9%).

Conclusion: The Present study has given us a clear insight into the changing trend of candida species with emergence of non-albicans candida (NAC) species as an important cause of neonatal candidemia from Udaipur city, definitely a changing trend

AWP. 05

A CROSS SECTIONAL STUDY OF DEMOGRAPHIC PROFILE, PSYCHIATRIC MORBIDITY AND SEXUAL DYSFUNCTION AMONG EPILEPSY PATIENTS

*Dr. Pradeep Singh Rathore, Dr. Manoj Dudi, Dr. Sushil Kherada, Dr. Suresh Gocher
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Background: Epilepsy is a chronic disorder which manifest with psychiatric morbidities. If psychiatric issues not addressed adequately the morbidities may increase and interfere with the epilepsy treatment adherence. Early recognition and treatment of psychiatric morbidities by involving psychiatrist may lead to a better outcome.

Aim: To assess socio-demographic profile, psychiatric morbidity and sexual dysfunction among epilepsy patients.

Methodology: It was a cross sectional study conducted in Department of Psychiatry, Department of Neurology and Department of Medicine, at tertiary level healthcare system. Diagnosed cases of epilepsy were assessed for demographic profile, psychiatric morbidity and sexual dysfunction by using M.I.N.I Plus, Hamilton Rating Scale For Anxiety (HAM-A), Hamilton Rating Scale For Depression (HAM-D, Brief Psychiatric Rating Scale (BPRS), Arizona Sexual Experience Scale (ASEX). Data analysis was done on statistical software and appropriate statistical test were used.

Results: In the total participants of epilepsy cases, 47% patients had depression, 32% patients had anxiety, 3% had psychosis and 15% patients had sexual dysfunction.

Conclusion: Depression was the most common psychiatric morbidity among epilepsy patients which constituted 47%, next common psychiatric morbidity was anxiety 32%, sexual dysfunction was 15% and only 3% had psychosis.

AWP. 06

EMOTIONAL MATURITY AND QUALITY OF LIFE IN PATIENTS WITH DEPRESSION AND OBSESSIVE-COMPULSIVE DISORDER: A COMPARATIVE STUDY

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Background: Emotional maturity is the ability to deal with stressful life events and it has been noted that emotional maturity and quality of life are also poor in mental disorders especially Depression and OCD.

Aim: To assess the emotional maturity and quality of life in patients with Depression and OCD and to study the association between the severity of diseases with QOL and emotional maturity.

Methodology: A comparative study based on consecutive sampling comprising of 50 patients with depression, OCD and healthy controls that were diagnosed based on ICD-10. YBOCS and HAM-D were used for assessing the severity of OCD and depression respectively and then screened out using emotional maturity scale and SF-36.

Results: Patients with Depression and OCD had poor emotional maturity in all the domains as compared to healthy controls ($p=0.0001$). Similarly, QOL also had significantly poor scores in both the groups and within themselves, depression had poor QOL in all the domains except energy ($p=0.409$) and physical functioning ($p=0.57$) as compared to OCD. Increasing severity of respective disorder was associated with higher scores of QOL and emotional maturity ($p=0.01$).

Conclusions: Emotional maturity in terms of social maladjustment and emotional regression was lower in the patients with depression as compared to OCD whereas QOL in the patients with depression and OCD as compared to healthy controls, impairment was seen in all the domains but comparisons within both the groups impairment were more in patients with depression in all the domains except physical functioning and energy domains. impairment in social functioning was more in patients with OCD as compared to depression. Increasing severity corresponds to poor emotional maturity and QoL.

AWP. 07

ADDITION OF VITAMIN A AND VITAMIN D SUPPLEMENTATION IN DOTS CAN BE BENEFICIAL FOR TREATMENT OF PULMONARY TUBERCULOSIS UNDER NTEP

*Dr. Varun V Gaiki, Dr. Jayakrishna Kurada, Dr. Sneha Shukla,
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State TB training Institute, Hyderabad
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Background: Tuberculosis (TB) is a major global public health problem, causing approximately 1.4 million deaths annually. The presence of micronutrient deficiencies among tuberculosis (TB) patients has led to the question whether micronutrient supplementation would give additional benefits for the patients on TB treatment.

Methodology: A randomised controlled trial was conducted where participants diagnosed with pulmonary tuberculosis and on DOTS treatment, meeting the inclusion criteria, were assigned in either control arm or intervention arm randomly from 4 different tuberculosis units from one of the district in Telangana. In 4 pronged randomised case-control study, each prong had 60 participants.

Results: In the arm which received therapeutic doses of vitamin A, showed a significant improvement of outcome indicators as compared with other intervention arms and control groups. Sputum conversion was negative in those receiving vitamin A and D to be 6.24 days earlier as compared to control groups. There was no significant difference in other treatment outcomes like treatment failures, defaulters and change of category of treatment. However significant difference was also observed in clinical outcomes like symptomatic relief in the form of weight gain and improvement of appetite.

Conclusion: Vitamin A and D supplementation in therapeutic doses, has found to be effective in improving treatment outcomes significantly. Moreover it is likely to be cost effective as well, as these vitamins are procured locally at cheaper rates with long shelf life. However further economic evaluations needs to be done.

AWP. 08

eGFR AND ALBUMINURIA FOR ASSOCIATION OF CARDIOVASCULAR DISEASE RISK IN PATIENTS OF TYPE 2 DIABETES MELLITUS WITHOUT CARDIAC COMORBIDITIES

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Background: The burden of Type 2 Diabetes Mellitus (T2DM) has steadily increased over the past quarter-century in India and across the globe. Onset of nephropathy in T2DM patients increases the CVD risk. India is facing an enormous healthcare burden in managing patients with different acute and chronic complications of T2DM.

Aims and objectives: To assess the role of eGFR and albuminuria as risk parameters to evaluate cardiovascular disease risk in patients with Type 2 Diabetes Mellitus.

Methodology: This is a cross-sectional study on 100 T2DM patients conducted at Department of Biochemistry, RUHS-CMS and associated Hospitals, Jaipur. Demographic and biochemical data was collected. Urine albumin excretion over 30 mg/g creatinine were considered as having albuminuria, and eGFR was calculated using MDRD formula and Patients were divided into 3 eGFR categories: ≥ 90 , 60-89, < 60 ml/minute. Ten year coronary heart disease risk (CHDR) was calculated using UKPDS risk engine.

Results: Out of total 100 patients, 63% were males and 37% females, 45% were more than 60 years of age. Duration of diabetes was 5.8 ± 4.6 . Patients with eGFR 60 ml/min were older in age with longer diabetes duration compared to those who had eGFR > 60 ml/min. A significant association between CHDR and eGFR ($p=0.014$) and CHDR and albuminuria ($p<0.001$) was observed.

Conclusion: CHDR score based on UKPDS risk engine shows a significant association with eGFR & albuminuria in patients with T2DM without symptomatic CVD. Our findings would be useful for physicians to make therapeutic decision and earlier intervention for T2DM patients.

AWP. 09

BIOCHEMICAL SIGNIFICANCE OF ISCHEMIA MODIFIED ALBUMIN (IMA) IN EARLY DIAGNOSIS OF ACUTE CORONARY SYNDROME

*Durgesh Nandini, Dr. R.K. Vyas, Dr. Pintoo Nahata, Dr. Varun Yadav, Dr. Yogita Soni
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Background: The term acute coronary syndrome is used for a series of myocardial ischemia, from angina to acute myocardial infarction. Due to association with high mortality, diagnosis of ACS is important before the irreparable damage occurs to myocardium. Ischemia modified albumin a novel cardiac biomarker has been approved by the US FDA for diagnosis of suspected myocardial ischemia.

Aim: To evaluate the role of IMA as a novel cardiac marker in early diagnosis of ACS by comparing with routine markers of cell necrosis within 6 hours onset of symptoms.

Methodology: Patients attending the emergency department (ED) within 6 h having ACS were selected. IMA was measured by Albumin cobalt binding test, Troponin I by CLIA and CK-MB by IFCC method.

Results: There was significant increase in IMA levels in ACS group (124.87 ± 19.42) than control (40.06 ± 9.3) Troponin I in Cases (1.99 ± 1.6) and in control ($.04 \pm .02$), CKMB in Cases (48.29 ± 33.6) and in control (16.9 ± 4.07).

Conclusion: IMA appears to be a developing into a new marker for diagnosing of ACS in the initial hours after symptoms onset when the standard biomarkers may not be elevated.

Key Words: Ischemia Modified Albumin, Cardiac Biomarker, ACS

AWP. 10

APPLICATION OF QUALITY INDICATORS IN IMPROVEMENT AND CONTROL OF URINARY TRACT INFECTIONS AMONG CATHETERIZED PATIENTS AT TERTIARY CARE HOSPITAL, UDAIPUR

Aditi Kothari, H.P. Pandya, Sheetal Jain, M.Tofiq, V.G. Ramachandran

Background: Quality indicators are one of the methodologies to improve the quality of hospital services. To monitor development of UTI after catheterization in admitted patients, it is decided to apply quality indicators (QI).

Aim: To determine the effectiveness of application of quality indicator in reduction of cases of UTI and preventing CAUTI and bacteriuria of catheterized patients.

Methodology: The study conducted on patients requiring catheterization as a part of treatment. Intervention by proper training and explanation of medical and paramedical staff could decrease the events of UTI among them and this parameter is utilized as a quality indicator in present study. The intervention includes pre-test, lecture and demonstration, training of proper insertion, maintenance and removal of catheter and post-test. The results of pre and post intervention were compared.

Result: 267 patients with catheterization from different sections of the hospital were included. The required data collected including 128 patients before intervention and 139 patients after intervention deemed second part of the study. Male/Female ratio in first and second part of study was 0.85 and 1.2, mean days of catheterization 3.91 and 3.7 days respectively. Clinically suspected patients of UTI among catheterized patients were 37 (28.9%) with 3 (2.34%) culture confirmation of infection and 2 (1.56%) of them with multidrug resistant isolates. In second part of study, there were 26 (18.7%) patients suspected with infection but all showed no growth.

Conclusion: A significant improvement was observed after the application of QI. Application of QI in different medical services is beneficial to improve various health services.

AWP. 11

PREVALENCE OF MULTIDRUG RESISTANT E COLI ISOLATED FROM PATIENTS WITH URINARY TRACT INFECTION

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Background: Escherichia coli is one of the normal commensals of human intestine. However, it can cause various infections when enters into uncommon sites. Urinary tract infection is one of the most common infection. Incidence of multidrug-resistant E. coli is increasing.

Aim: To find out the prevalence of multidrug resistant E. coli isolated from patients with urinary tract infection.

Methodology: This retrospective study was carried out from July 2021 to October 2021. All samples were inoculated by standard loop method on blood agar and MacConkey agar. Bacterial isolates were identified by standard microbiological techniques and antibiotic susceptibility test was performed by disc diffusion method according to CLSI guidelines.

Results: A total of 658 (35.82%) E. coli were isolated from 1837 culture positive urine samples. 481 (73.11%) isolates out of 658 were from outpatients and 177 (26.89%) from indoor patients. Among positive isolates males were 381 (57.9%) and females were 277 (42.1%). The highest percentage of drug resistance was seen in Cefotaxime (90.6%) followed by Ampicillin (89.5%), Ciprofloxacin (80.4%), Ceftazidime (75.3%), Cotrimoxazole (62.4%), Cefepime (61.2%), and Doxycycline (44.1%). Isolated E. coli shows high sensitivity to Nitrofurantoin (93.6%), followed by Fosfomycin (92.6%), Imipenem (75%) and Amikacin (69.1%). The study shows 79.33% of isolates were multidrug resistant, and 4.10% were extensively drug resistant.

Conclusion: The study shows a very high degree of resistance to most of the antibiotics in isolated E. coli in urinary tract infection.

AWP. 12

ASYMPTOMATIC BACTERIURIA IN PREGNANT WOMEN A CROSS-SECTIONAL STUDY

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Background: Due to various anatomical and physiological changes in pregnancy, women are prone to develop urinary tract infections which may progress to involve the upper urinary tract resulting in acute pyelonephritis, or may involve the lower tract resulting in acute cystitis.

Objective: This study was conducted for early diagnosis of significant asymptomatic bacteriuria in pregnant women, so that with timely intervention, complications can be prevented.

Methodology: The study was conducted from January 2020 to December 2020 on antenatal cases attending Obstetrics OPD in RNT Medical College. The samples were processed within one hour of collection and tested for the presence of significant asymptomatic bacteriuria and for the sensitivity pattern of the isolates.

Results: A total of 363 samples were evaluated, 44 samples showed significant bacteriuria in culture with most common isolated organism was *Enterococcus faecalis* (56%) followed by *Escherichia coli* (31%), *Klebsiella pneumonia* (4.55%) and *Pseudomonas species* (2.27%). Gram positive isolates were highly sensitive to Amoxyclav, Nitrofurantoin, Vancomycin, Linezolid, and Imipenem, while showing reduced sensitivity to Amoxicillin and Nalidixic acid. While the Gram-negative isolates were highly sensitive to Gentamicin, Ceftaclav, Cefoperazone- Sulbactam, Piperacillin-Tazobactam, Linezolid, Vancomycin, Imipenem and show least sensitivity to Amoxicillin, Cephalexin, and Ceftriaxone.

Conclusion: To prevent serious complications both in the mother and in the fetus, urine culture and sensitivity in first and second trimester should be done as a routine procedure for early diagnosis of asymptomatic bacteriuria.

AWP. 13

SAFETY AND EFFICACY OF DEXMEDETOMIDINE AS AN ADJUVANT TO HYPERBARIC BUPIVACAINE: A RANDOMISED CASE-CONTROL STUDY

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Background: Various adjuvants are co-administrated with local anaesthetic agent to improve the speed of onset of block, duration of analgesia and can decrease the dose of local anaesthetic agent. As the dose of local anaesthetic decreases, its adverse drug reaction also used to decrease specifically Bupivacaine.

Aim: To evaluate the, efficacy and safety of dexmedetomidine as an adjuvant to bupivacaine in spinal anaesthesia.

Methodology: This is a randomised, comparative study conducted in PIMS, Umarda. 72 patients fulfilling inclusion & exclusion criteria were taken in this study. Patients were randomly allocated in two groups: Group B and Group BD. Sensory parameters like, onset of sensory block; total duration of sensory block were recorded using pin prick method. Motor block was assessed with modified Bromage score. Time for onset and duration of motor block was recorded.

Result: Mean time required for the onset of sensory block in group B was 3.24 min and in Group BD, it was 2.42 min, p-value - 0.006 (Significant). The mean duration of sensory block in group B was 181.07 min and in BD was 263.6 min, (p=0.00001, HS). The mean time for onset of motor block was 8.31 min in group B and 7.94 in group BD, p value was 0.1428.

Conclusion: We conclude that 5µg dexmedetomidine as an adjuvant to hyperbaric bupivacaine prolong the duration of sensory and motor block. It provides good quality analgesia, haemodynamic stability and prolongs postoperative analgesia.

AWP. 14

ASSESSING THE DEPTH OF SUBARACHNOID SPACE IN OBSTETRIC VERSUS NON OBSTETRIC POPULATION: A PROSPECTIVE OBSERVATIONAL COMPARATIVE STUDY

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Aim: To compare the subarachnoid space depth in obstetric and non-obstetric Indian female population using different formulae (Abe's, Bonadio's, Craig's, Stocker's and Chong's modified formula), to analyse the accuracy and feasibility of using the most appropriate formula and to find the relation of observed subarachnoid space depth with arm and waist circumference.

Methodology: 150 female patients were divided into group P (parturient) and group NP (non-parturient) of 75 each scheduled for elective surgery under spinal anaesthesia. SSD was measured after lumbar puncture using a standard calliper. SSD in obstetric and non-obstetric female population were compared using different formula and statistically analysed to determine the most accurate formula using pearson co-relation analysis and paired t test. Multivariate regression was used to co-relate observed SSD and anthropometric measurements.

Results: Mean SSD in group P was found to be higher in group P (5.37 ± 0.70) than Group NP (4.75 ± 0.64) and statistically significant. Stocker's formula correlated best with the observed SSD in group P (pearson coefficient=0.623, $P=0.001$) & in group NP Bonadio's formula correlate best with SSD (pearson coefficient=0.657, $P=0.001$). Mean difference between observed SSD and predicted SSD by stoker's formula was found to be least (0.02 ± 0.27) in group P and in group NP least difference was found with bonadio's formula (0.03 ± 0.52) with non-significant P values. Multivariate regression was used in statistical analysis.

Conclusion: SSD in obstetric patients was significantly greater than non-obstetric patients. However stocker's formula co-related best with observed SSD in group P where as in group NP bonadio's formula found to be more accurate.

AWP. 15

AN EVALUATION OF THE ANALGESIC EFFECT OF LANDMARK GUIDED TRANSVERSES ABDOMINIS PLANE BLOCK VERSUS LOCAL INFILTRATION OF 0.75% ROPIVACAINE IN THE PATIENTS UNDERGOING INGUINAL HERNIA REPAIR

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Aims: To determine whether Ropivacaine 0.75% in TAP block confers adequate post-operative analgesia in patients undergoing Inguinal Hernia Repair. To assess the best route by perineural Ropivacaine in Inguinal Hernia surgery between local infiltration and TAP block.

Material and Methods: This prospective, double blind, randomized control trial was carried out after IEC approval at RNT Medical College, Rajasthan. Ninety (90) eligible patients were randomly allocated with 3 groups by 30 each and received Group RT (n=30) Landmark guided TAP Block with Ropivacaine 0.75% 10ml, and local infiltration at the wound site with normal saline 0.9% 10ml. Group RL (n=30) landmark guided TAP block with 0.9% normal saline 10ml, and local infiltration at the wound site with Ropivacaine 0.75% 10ml. Group C (n=30) Landmark guided TAP Block with 0.9% normal Saline 10ml, and local infiltration at the wound site with 0.9% normal saline 10ml. Patients were evaluated for the duration of postoperative analgesia, satisfaction score and adverse events, if any.

Results: Time to first Rescue Analgesic Requirement was much higher in Group RT (9.06±0.81 hours) and Group RL (7.59±0.84 hours) as compared to Group C (4.12±0.98 hours) post-operatively in first 48 hours after block. Post-operative Visual Analogue Scores were lower in Group RL and Group RT 2hours, 4hours and 6hours 12 hours as compared to Group C.

Conclusions: Administration of 0.75% ropivacaine 10ml in landmark guided TAP block provides effective and a longer duration of analgesia and reduces 24-hour NSAIDS consumption when compared to local wound infiltration of the same amount and concentration of 0.75% ropivacaine in adult patients undergoing Elective Inguinal Hernia repair under sub arachnoid block.

AWP. 16

POSTOPERATIVE OUTCOME IN ABDOMINAL HYSTERECTOMY FOLLOWING IMPLEMENTATION OF ENHANCED RECOVERY AFTER SURGERY (ERAS): A PROSPECTIVE, COMPARATIVE, QUALITATIVE STUDY

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Background: Use of a Standardized, multidisciplinary, evidence-based approach (ERAS Protocol) to optimize recovery and reduce the detrimental effects of surgical stress in abdominal hysterectomy.

Aim: To evaluate the efficacy of predefined ERAS protocol on post-operative outcome following abdominal hysterectomy in terms of readiness for discharge and post-operative pain assessment.

Methodology: A total of 240 patients undergoing abdominal hysterectomy were divided into ERAS (n=120) and traditional protocol groups (n=120). Parameters observed were perioperative hemodynamic control, post-operative pain and total requirement of rescue (opioid) analgesics. Readiness for discharge was compared between the groups as primary objective.

Results: Incidence of hypotension was more in traditional protocol as well as the number of vasopressor dose was increased in traditional protocol. Readiness for discharge was significantly reduced in ERAS vs traditional protocol (3.18 ± 0.41 days vs 5.12 ± 0.39 days; $p < 0.001$). Post-operative VAS score was significantly reduced in ERAS patients at various time intervals compared to traditional protocol group ($p < 0.001$) as also there was significant reduction in opioid (rescue analgesic) consumption in ERAS group (125 ± 44.72 mg vs 171.74 ± 58.36 mg; $p < 0.001$).

Conclusion: Implementation of ERAS protocol significantly improves postoperative outcome in abdominal hysterectomy with stable hemodynamics, pain control and early discharge from hospital.

AWP. 17

TO COMPARE THE EFFICACY OF LABETALOL AND METHYLDOPA IN TREATMENT OF PREGNANCY INDUCED HYPERTENSION

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Aim: To find out the efficacy of two oral antihypertensive drugs namely labetalol and methyldopa in management of pregnancy induced hypertension.

Methodology: The study consisted of 100 patients with pregnancy induced hypertension attending outpatient department and admitted in ANW, or who directly came to labour room. These patients were randomly selected on lottery basis after they fulfilled the inclusion criteria. Total 100 patients were taken for the study and divided into 2 groups of 50 patients in each group.

Results: The mean SBP before treatment in methyldopa group was 162.33 ± 8.93 mmHg and 160.23 ± 8.25 mmHg in labetalol group which showed a fall to 135.26 ± 6.56 mmHg (methyldopa group) and 136.25 ± 5.31 mmHg (labetalol groups) after treatment. Fall of SBP was significant in both the groups. But inter group difference was not significant ($p > 0.05$). The mean DBP before treatment was 106.82 ± 3.23 mmHg in methyldopa group and 104.56 ± 5.18 mmHg in labetalol group which decreased to 88.23 ± 5.62 mmHg and 87.25 ± 5.42 mmHg respectively after treatment. Fall of DBP was significant in both the groups. But inter group difference was not significant ($p > 0.05$). Fall of MAP was significant in Group A and Group B. But inter group difference was not significant ($p > 0.05$).

Conclusion: Labetalol and methyldopa are equally efficacious in controlling blood pressure in new onset hypertension in pregnancy

AWP. 18

PSYCHOLOGICAL STRESS LEVELS IN MEDICAL STUDENTS AND TEACHERS DURING COVID-19 PANDEMIC

Dr Kavita

Background: In present situation, Corona virus disease 2019 (COVID-19) pandemic has emerged as major threat to physical health of people, along with paramount socio-economic and unmeasurable psychological consequences globally. Psychological impact of these prevalent circumstances is far more challenging for medical students and medical teachers. Aim: This study focuses on assessing mental stress levels in medical students and teachers due to COVID-19 pandemic.

Methodology: A cross-sectional observational study with a sample size of 119 medical students and 60 medical teachers was conducted by Department of Physiology, Vardhaman Mahavir Medical College and Safdarjung Hospital, New Delhi, India. Two established validated scales - perceived stress scale -10 and Zung self-rating anxiety scale, were used to determine stress and anxiety status respectively of both medical students and medical teachers during ongoing COVID-19 outbreak and also decipher their association with other socio-demographic and emotional conditions. Data was collected through an online survey distributed as Google forms.

Results: Perceived stress and anxiety levels were high amongst both medical students and medical teachers. Correlational analysis revealed strong positive association between perceived stress score and anxiety score in both the groups. Even after normalization of age and similar distribution of gender in two groups - medical students had higher anxiety and perceived stress levels than medical teachers.

Conclusion: The existing COVID outbreak is culminating to higher stress and anxiety levels in the medical profession with higher manifestation of the same in medical students. Remedial measures and effective training should be provided to this affected group.

Keywords: medical students, medical teachers, perceived stress scale, Zung self-rating anxiety scale, Corona virus disease.



**ABSTRACT
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OP. 01

CORRELATION OF SERUM VITAMIN D LEVEL IN ACUTE CORONARY SYNDROME (ACS) AND ITS ASSOCIATION WITH IN-HOSPITAL COMPLICATIONS

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Background: Vitamin D suppresses renin-angiotensin system & affects endothelial function, inflammatory processes, platelet function, insulin resistance, and blood pressure. All these effects are relevant during ACS. Low levels of vitamin are associated with ventricular dysfunction and cardiac remodelling after ACS and with heart failure mortality and sudden cardiac death.

Aims: To estimate Vitamin D level in patients of ACS and to study relationship between Vitamin D level and hospital complications

Methodology: Observational study. 100 patients based on clinical history & examinations, 12 lead ECG findings and cardiac-markers, unstable angina, NSTEMI and STEMI. In all patients a venous blood sample was drawn at admission and 25(OH)-D level was done and 2D-Echo was done in all patients and vitaminD status determined.

Results: Out of 100 patients 38% were severe vitaminD deficient, 28% patients were deficient vitaminD level, 24% were insufficient vitaminD level and only10% cases were normal vitaminD level. Severe vitaminD deficiency was present in 60% patients diagnosed with ST elevation MI, 36% patients with non ST-elevation MI and 20% patients with unstable angina. 24 patients were diagnosed with cardiogenic shock, 21 with heart failure, 10 patients with arrhythmia and6 patients with both heart failure and cardiogenic shock.

Conclusion: Vitamin D deficiency was present in most patients admitted with ACS and is highly prevalent in ST elevation mi and it is also associated with poor outcome in patients of ACS. Level of Vitamin D has direct association with ejection fraction.

OP. 02

STUDY OF CLINICAL PROFILE OF PRIMARY HEADACHE DISORDERS AT TERTIARY CARE CENTRE IN SOUTH WEST RAJASTHAN

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Background: Globally headache is responsible for more disability than any other neurological problem. Headache can be initiated or amplified by various triggering factors like light, exertions, lack or excess sleep, alcohol or other chemical stimulations like drugs. It affects patient's quality of life and impairs work, social activities, and family life.

Aim: To classify the type of primary headache disorders in patients presenting at the tertiary care centre and determine the various aggravating factors that may affect prognosis.

Methodology: This was a prospective observational study. Patients who came to Neurology OPD with primary complain of headache were included. Diagnosis of migraine was based on International classification of headache (ICHD 3). Basic demographic data was collected with detailed history and CT SCAN or MRI was done to rule out any neurological illness.

Results: Among 50 patients with primary headache, migraine was the commonest type of headache (46%), followed by tension type headache (31%). In the migraine group, migraine without aura (56%) was the commonest followed by chronic migraine (31%) and migraine with aura (10%). Chronic tension type headache (74%) followed by frequent episodic tension type headache (ETTH) was seen in the tension type headache. Females were affected more in migraine and tension type headache group while in cluster headache and trigeminal neuralgias males were affected more.

Conclusion: Migraine was found as the most common headache disorder followed by tension type headache. Stress was found as the most common precipitating factor followed by hunger.

OP. 03

ASSOCIATION BETWEEN HBA1C VALUES AND IRON DEFICIENCY ANEMIA IN NON DIABETIC PATIENTS

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Background: HBA1c is gold standard for the diagnosis of diabetes, however many clinical conditions affect the HBA1c level including anemia. One of the well-studied pathological ill effects of IDA in the biological system is glycation of proteins, whereas glycated hemoglobin produces ketoamine reaction between glucose and the N-terminal valine of both beta chains of the hemoglobin molecules. Major form of glycated Hemoglobin is HBA1c which is used to assess long term glycaemic control.

Aim: To determine the effect of IDA on the HbA1c levels in non-diabetic patients

Methodology: A cross sectional study was conducted on 50 patients admitted and diagnosed as moderate and severe Iron deficiency anemia based on WHO criteria and lab investigations (CBC, PBF, TIBC and Ferritin). Data was compiled for a period of 3 months (JUN 2021-SEP 2021). The patients who were diabetic, pregnant, known case of CKD or on steroids, beta blockers or thiazide diuretics were excluded from the study.

Results: The overall data analysis showed positive co relation of IDA and HBA1c value. p value was statistically significant. ($p < 0.05$)

Conclusion: HBA1c is not affected by blood sugar level alone. There are various confounding factors which can affect HBA1c. Hence it is prudent to rule out IDA before making a therapeutic decision, based on HBA1c levels.

OP. 04

ASSESSMENT OF CHRONIC PRURITUS IN CANCER PATIENT AND ITS IMPACT ON QUALITY OF LIFE

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Background: Chronic pruritus is a disabling symptom and prevalent in the setting of different malignancies. The clinical attributes of chronic pruritus may vary with demographic and disease related factors.

Aims: To assess the burden of chronic pruritus in cancer patients and measuring its impact on quality of life.

Methodology: A cross section study was done to characterize pruritus in different cancer patients (both haematological and solid malignancies). In this study, patient with neoplasia proven by lesional biopsy, bone marrow biopsy, IHC or any other relevant investigations were included. Patients less than 18 years or with any cognitive impairment were excluded. A total of 97 patients were recruited in the study and clinical socio-demographic variables were recorded according to pre-designed proforma. Patients were asked to fill questionnaires based tool (DLQI) for evaluating the impact of chronic pruritus on Quality Of Life. Severity of pruritus was assessed using NRS. Association and correlation between various clinico-demographic factors and severity of pruritus was sought using appropriate statistical analysis.

Results: Chronic pruritus was disabling in most patient. Chronic pruritus in malignant patients was attributed to dermatological, systemic, paraneoplastic and any drug related itch. Mean DLQI-20±3, Mean NRS7±2.

Conclusion: Pruritus associated with malignancy has negative impact on patient's quality of life.

OP. 05

AN OBSERVATIONAL STUDY OF PATTERN & FACTORS ASSOCIATED WITH SELF APPLIED TOPICAL AGENTS AMONG PATIENTS ATTENDING DERMATOLOGY OPD IN THE AREA OF SOUTHERN RAJASTHAN

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Background: Self-medication is growing public health issue worldwide and misuse of topical agents can result in bacterial resistance, hypersensitivity reactions, dependence, withdrawal symptoms etc. Furthermore, temporary relief of symptoms can mask a disease which goes undetected and can convert into a more serious condition.

Aims & objectives: To study the incidence and pattern of self-applied topical medication (SATA) among patients attending dermatology OPD and to note the knowledge, attitude and practice of such patients about skin disorders & their treatment.

Methodology: An observational study was conducted in Geetanjali medical college and hospital Udaipur from May 2021 to Oct 2021 including all the patients having history of SATA.

Results: A total of 133 patients attending dermatology OPD presented with a history of SATA. The most common conditions observed for SATA were dermatitis and infections in which corticosteroids and double combination of antifungal & steroids were used. The information of these drugs was obtained by them from their friends and family members.

Conclusion: Through this study we spread awareness to ban over the counter drugs and to help reduce their side effects and also to conduct zonal studies to eradicate their further use.

OP. 06

A STUDY OF EFFECT OF DERMATOLOGICAL MANIFESTATIONS ON QUALITY OF LIFE OF GERIATRIC AGE GROUP

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Background: Geriatric dermatology is an evolving branch which deals with cutaneous manifestations of patients aged 65years & above. Skin diseases lack priority resulting in abandonment of geriatric dermatology but recent advancement in health care facilities and attentiveness towards the elderly, has shown increase in its prevalence.

Aims: To study the quality of life in geriatric population having cutaneous manifestations with prevalence of most common dermatological condition in Southern Rajasthan and the pattern and frequency in which they occur.

Methodology: An observational study was conducted on 154 geriatric patients who attended the dermatology OPD in a period of one year. Patients were requested to fill a questionnaire and Dermatology Life Quality Index was the parameter used for assessment.

Results: Out of 154 geriatric patients attending dermatology OPD, 52 (33.7%) were female and 102 (66.2%) were male. The most common dermatoses observed were Erythematous-squamous disorders following vesiculobullous disorders and infections. Among all the patients 44.8% had large effect on their quality of life.

Conclusion: This study was focussed towards better understanding of geriatric dermatoses, their prevalence in our area and effect it has on patient's quality of life so that better treatment modalities could be made available and proper psychological counselling about their condition could be done with the sole purpose of building a positive attitude in them towards handling of their disease.

OP. 07

A COMPARATIVE STUDY OF DERMAROLLER ALONE VERSUS DERMAROLLER WITH PLATELET RICH PLASMA IN POST ACNE SCARS

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Background: Scarring due to acne is a most common problem. Dermaroller has been a well-accepted treatment for treating acne scars. Platelet rich plasma is a newer option to investigate.

Aim: To compare a) the efficacy of dermaroller alone with 5% b) dermaroller with PRP in treatment of post acne scars.

Methodology: Prospective comparative parallel group intervention study. 50 subjects with post acne scars were recruited into two groups according to inclusion and exclusion criteria. Group A treated with dermaroller alone, Group B treated with dermaroller with PRP .
Results: Both groups were noted significant improvement. However, group b were noted more significant effect after 4 sitting when compared to group a patient.

Conclusions: Results show a statistically and clinically significant outcome in favor of dermaroller with PRP for management of post acne scars in the selected study population with no adverse outcomes.

Keywords: post acne scars, dermaroller, platelet rich plasma.

OP. 08

EVALUATION OF DERMATOSCOPIC (TRICHOSCOPIC) PATTERNS IN HAIR AND SCALP DISORDERS

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Background: Hair and scalp disorders are one of the common complaints for which patients seek consultation in dermatology clinic. These are distressing to the patient, have a negative effect on their psyche and often pose diagnostic challenges and hurdles for the dermatologist. Examination by naked eye is usually not sufficient making differential diagnosis often challenging and skin biopsy might be required. Dermatoscopy (Trichoscopy) is considered the newest frontier for the diagnosis of hair and scalp disease.

Aims: To study the various dermatoscopic (trichoscopic) patterns in hair and scalp disorders and to correlate them clinically.

Methodology: Dermatoscopic pictures were taken of patients with hair and scalp disorders at out Patient Department of Dermatology, Venereology and Leprosy at Geetanjali Medical College and Hospital, Udaipur from May 2021 to Oct 2021.

Results: A total of 86 patients attending dermatology OPD presented with a history of hair and scalp disorders. The most common disorder observed were androgenetic alopecia and most common finding was yellow dots.

Conclusion: Dermatoscopy is very useful to differentiate nonscarring from scarring alopecia, diagnose early AGA, distinguish AA from other patchy alopecia, provide fast diagnosis of tinea capitis. Trichoscopy is a noninvasive technique that does not require expensive instruments and is very well accepted by patients. It definitely improves the quality of care of patients with alopecia and reduces the necessity of taking scalp biopsy specimens.

OP. 09

AN OBSERVATIONAL STUDY ON PATTERN OF ADMISSION AND CLINICAL OUTCOME OF SCRUB TYPHUS PATIENTS ADMITTED IN PEDIATRIC INTENSIVE CARE UNIT

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Background: Scrub typhus is a potentially fatal disease in pediatric age group. Caused by *Orientia tsutsugamushi*, It is an acute febrile illness characterized by atypical eschar, generalized lymphadenopathy, skin rashes, and vague non-specific symptoms such as myalgia, headache, and cough.

Aim: Hospital based observational study on pattern of admission and clinical outcome of scrub typhus patients admitted in PICU

Methodology: Information retrieved clinical features, laboratory test results, complications observed and morbidity and mortality profile of patients admitted in PICU in the last five years.

Results: A total of 147 diagnosed patients were admitted into PICU. There were 26.5% male and 73.4% female patients giving an F: M ratio of 2.76:1. 2.7% were of 1 month to 3 years of age, and 19.7% were patients aged 3-10 years, and 77.5% were of 10 years to 18 years of age. The overall mortality rate among scrub typhus patients was 12.9%.

Conclusion: The presentation of scrub typhus is often variable, usually non-specific, however with doubtless severe multi-organ pathology. Early detection is essential for specific treatment and better outcomes.

OP. 10

THE PATTERN OF ADMISSION AND THEIR RELATED OUTCOMES IN NICU OF A TERTIARY CARE TEACHING HOSPITAL, UDAIPUR, RAJASTHAN, INDIA

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Background: The first steps in improving early neonatal survival are to document the number and rate of deaths and identify their common causes. As per the National Family Health Survey-3 report, the current neonatal mortality rate (NMR) in India is 39 per 1000 live births, neonatal deaths account for nearly 77% of all infant deaths (57/1000) and nearly half of under-5 child deaths (74/1000).

Aim: To study the disease pattern and outcome of neonates admitted to the neonatal intensive care unit (NICU) of a tertiary care teaching hospital

Methodology: The age, sex, gestational age, and morbidity and mortality profile of all NICU admissions in 5 years was determined and the difference between Inborn (born in the Teaching Hospital) and Out born was calculated. Morbidity risk factors to reduce NMR in Udaipur were determined.

Results: 2648 neonates were admitted to NICU during the study period. Male to Female ratio was 1.30:1. Major causes of morbidity were Meconium Aspiration Syndrome (16.16%), Respiratory Distress Syndrome (10.12%), Cong. Heart Defects (8.76%) and Hypoxic-Ischemic Encephalopathy (5.66%). Overall mortality rate was 9.96%. Most of the Deaths were due to MAS (25.75%), RDS (15.90%), and HIE (12.87%).

Conclusion: This study identified Prematurity, Extremely low birth weight, MAS, and Neonatal Sepsis as major causes of Morbidity and MAS, RDS as the major contributors to neonatal mortality. Improving antenatal care, maternal health, and timely referral of high-risk cases to tertiary care hospitals will help to improve neonatal outcomes.

OP. 11

A STUDY OF LIPID PROFILE IN PATIENTS OF RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis is a chronic systemic inflammatory autoimmune disease, usually involving peripheral joints in a symmetric distribution. Lipids contribute to synovitis in RA through participation in the arachidonic acid pathway within joint space.

Aim: To study lipid profile along with different atherogenic indices among RA patients & to compare it with healthy matched controls

Methodology: The study was conducted in medicine ward of Pacific Institute of Medical Sciences with 25 diagnosed cases of RA and 25 controls over six months. Lipid profile was done on all cases and control. The results were analysed using SPSS Software.

Results: In RA cases, females outnumbered males, around 76% of cases are females. The study shows that 37.5% of RA cases were of the age group of 31-40Yr, 32% of the RA cases were of 20-30 Years of age, 28% of RA cases were of age group 41-50 & 6.5% of RA cases were of age 51-60Yrs. Total cholesterol, Triglycerides, VLDL & LDL were increased, while HDL cholesterol decreased among RA study group compared to the control group

Conclusion: The study showed that RA was predominantly found among the middle-aged female population. Patients with RA have significantly lower values of HDL compared to controls. Significantly higher values of other parameters of lipid profile were found among RA patients. Higher atherogenic indices indicate higher cardiovascular risk among RA patients and lowering this ratio has shown to decrease this risk.

OP. 12

STUDY ON THE ASSOCIATION BETWEEN HYPERURICEMIA AND ALBUMINURIA IN PATIENTS OF TYPE 2 DIABETES MELLITUS

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Background: Type 2 diabetes mellitus is associated with a high rate of complications related to cardiovascular disease and diabetic nephropathy, retinopathy, and neuropathy. Type 2 diabetes patients with increased urinary albumin excretion suffer increased morbidity and mortality as compared to normo-albuminuric patients. In clinical studies, serum uric acid concentration has been found to be associated with diabetic nephropathy. On the other hand, we also know that albuminuria is the main marker of diabetic nephropathy independent of hypertension.

Aim: This hospital-based observational (cross-sectional) study aimed to evaluate the relationship of serum uric acid level & urinary albumin creatinine Ratio (ACR) in patients of T2DM.

Methodology: The study group comprised of 50 patients of type 2 diabetes mellitus of age between 40 to 80 years. Patients were diagnosed to have diabetes mellitus on the basis of American Diabetes Association (ADA) criteria. Age, body weight, height, body mass index (BMI), serum uric acid, urinary albumin to creatinine ratio (ACR), fasting blood glucose (FBG), glycated haemoglobin (HbA1c), lipid profile, serum creatinine was recorded for each patient.

Results: Albuminuria was found to be significantly associated with hyperuricemia. Serum uric acid as found to be a significant factor which could predict only 40.2% ($R^2 = 0.4028$) variation in albumin creatinine ratio.

Conclusion: This study showed that the serum uric acid concentration was significantly and with greater probability associated with albuminuria in patients with type 2 diabetes mellitus.

OP. 13

CRITICAL APPRAISAL OF OXYGEN DEMAND AND COST BEFORE, DURING AND AFTER COVID-19 PANDEMIC AT TERTIARYCARE HOSPITAL

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Background: During COVID-19 pandemic oxygen demand was increased all over the country. After the second wave of pandemic many oxygen plants have been installed at various hospitals.

Aim: To find the trend of oxygen consumption and its cost before, during and after COVID-19 pandemic.

Methodology: The data was collected retrospectively starting from January 2020 to December 2021 regarding oxygen cylinder consumption after installation of oxygen plant-oxygen. We calculated its cost by estimating the electricity bill.

Results & Discussion: During first wave of pandemic which lasted from April 2020 to October 2020, no oxygen plant was functional in our tertiary care centre. In January 2021, first oxygen plant was started. Oxygen cylinder consumption was minimum (2,607) during April 2020 and maximum (16,292) during May 2021 because number of patients admitted at higher rate and need of oxygen was very high during second wave of covid 19 pandemic. Cost of oxygen supplied by vender was Rs-260/cylinder including all charges. Considering only the extra electricity bill paid after working of plants, the cost of oxygen is almost double (Rs-466/cylinder).

Conclusion: Cost of oxygen produced by oxygen plants is higher than provided by vender in forms of cylinder. So, cautious use of oxygen and maintenance of these plants is necessary to combat the Covid 19 like emergency situation.

OP. 14

ANALYSIS OF ANXIETY AND DEPRESSION AMONG POST-GRADUATE RESIDENTS USING HOSPITAL ANXIETY AND DEPRESSION SCALE (HADS)

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Background: Depression and anxiety are serious health conditions that affect increasing numbers of people globally. Residents of tertiary medical institute follow a regress schedule without proper sleep, nutrition and physical activity, this in turn has an adverse effect on their body and may even lead to anxiety and depression.

Aim: To find prevalence of anxiety and depression among PG residents. To find out associated factors with presence of anxiety and depression.

Methodology: Study design-Analytical Cross-sectional Study period-Approximately 2 months. Study area-Jhalawar Medical College, Jhalawar Study population-All PG Residents Study sample-Complete Enumeration of PG Resident Inclusion criteria-Residents who are willing to participate. Exclusion criteria-PGs not willing or unfit due to pre-existing medical reasons. Study tools and materials-Pre-designed and Pre-tested Proforma and HADS (Hospital Anxiety and Depression Scale). Study analysis-MS Excel software and analysed by SPSS software version 28.0 (trial version).

Results: Among 121 PG students, 64.5% were male and 35.5% were females. Among study participants 49.6% had anxiety, 42.2% had depression and 21.5% had both as per HADS score. Statistically significant association of anxiety was found with residence ($p=0.036$) while depression was significantly associated with residence ($p=0.048$) and less sleeping hours ($p<0.001$).

Conclusion: Approximate half of the PG students were suffering from anxiety and depression as per HADS score. This is strikingly high as compared to general population (3%), as reported by National Mental Health Survey 2015-16. Hostel environment is associated with anxiety as well as depression.

OP. 15

HEPATO-PROTECTIVE ROLE OF N-ACETYLCYSTEINE IN TUBERCULAR PATIENTS ON FIRST LINE ANTI-TUBERCULAR DRUGS

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Background: Treatment of TB is an important issue because of gastric intolerance and drug induced hepatitis due to Anti Tubercular treatment (ATT). The incidence of hepato-toxicity reported varying from 2% to 28%. NAC (N-acetyl cysteine) because of its antioxidant's property can be useful to prevent anti tubercular drugs induced liver damage.

Aim: Hepato-protective role of N-acetylcysteine in tubercular patients on First line Anti-tubercular drug

Methodology: 160 patients with tuberculosis positive (both pulmonary and extra-pulmonary tuberculosis) were taken in study. They were then divided in 2 groups into halves i.e. 80 patients in each group, where patients in 1st group (NAC group) were given N-acetyl cysteine (NAC) for 1 month along with ATT and other group (Non-NAC group) were not given NAC along with ATT.

Results: Out of the total 160 patients included in our study, the patients which were included in the NAC group showed less incidence of hepatotoxicity.

Conclusion: The results of this study show that the administration of NAC during first month treatment of Tuberculosis lowers the hepatotoxic effect of anti-TB drugs. Therefore, it is recommended that NAC need to be as potential adjuvant therapy along with anti-TB drugs to prevent and reduced incidence, duration and severity of hepatotoxicity and also improve patient compliance, quality of life and disease outcome.

OP. 16

EVALUATION OF SERUM CALCIUM, PHOSPHORUS AND TOTAL CHOLESTEROL LEVELS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is a chronic, autoimmune inflammatory systemic disease affecting primarily the synovium, leading to joint damage and bone destruction. RA causes significant morbidity as a result of synovial inflammation, joint destruction and associated disability. Patients with RA are at increased risk for cardiovascular diseases.

Aim: To evaluate serum Calcium and Phosphorus levels in patients with RA. To evaluate serum total cholesterol levels in patients with RA.

Methodology: Total 50 Diagnosed cases of RA and 50 controls (age and gender matched) were included in this study according to inclusion and exclusion criteria. The study was conducted in Department of Biochemistry in association with Department of Medicine, Mahatma Gandhi Medical College and Hospital, Sitapura, Jaipur.

Results: The mean \pm SD value of serum Calcium levels in cases (8.76 \pm 0.32mg/dl) as compared to control (9.16 \pm 0.31mg/dl) are significantly lower with P value $<$ 0.00, while the mean \pm SD value of serum Phosphorus levels in cases (4.72 \pm 0.84mg/dl) as compared to controls (3.85 \pm 1.19mg/dl) are significantly higher with P value $<$ 0.001. The mean \pm SD of total cholesterol levels in cases (151.79 \pm 33.98mg/dl) as compared to controls (145.64 \pm 14.25mg/dl) are non-significant with p value 0.13.

Conclusion: Serum calcium levels were decreased while serum phosphorus levels were increased significantly in RA cases compared to controls. The present study showed no significant difference in total cholesterol levels between RA cases and control group.

Keywords: Rheumatoid Arthritis, Calcium, Phosphorus, Total Cholesterol

OP. 17

AN OBSERVATIONAL STUDY TO COMPARE SERUM LIPID PROFILE IN PSORIASIS AND PSORIATIC ARTHRITIS PATIENTS WITH HEALTHY CONTROLS

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Background: Psoriasis and psoriatic arthritis are chronic inflammatory systemic disease characterized by metabolic abnormalities including cardiovascular risk and an oxidative imbalance. This study assesses blood parameters of lipid metabolism.

Aims: To analyze and correlate lipid profile with psoriasis and psoriatic arthritis.

Methodology: After Ethical Committee approval, serum triglycerides and total cholesterol was measured in 30 psoriasis and 30 psoriatic arthritis cases and results were compared with 30 age matched controls. Serum concentrations of lipid metabolism parameters were measured: triglycerides (TG), total cholesterol (TC), low-density lipoproteins (LDL), very low-density lipoproteins (VLDL), and high-density lipoproteins (HDL). The Psoriasis Area and Severity Index (PASI) were used to determine disease severity.

Results: A significant rise in triglycerides and total cholesterol was observed in psoriasis and psoriatic arthritis patients as compared to non-psoriatic controls ($p < 0.05$). Patients with PSA had the highest TC: HDL-C and LDL-C: HDL-C ratios (respectively $p < 0.05$, $p < 0.01$)

Conclusion: Among patients with psoriasis and psoriatic arthritis patients, we found abnormal lipid levels, which might be due to chronic inflammation in these conditions. Effective treatment of patients with psoriasis and PSA could reduce the risk of cardiovascular diseases.

OP. 18

AN OBSERVATIONAL STUDY TO COMPARE THE SERUM LIPID PROFILE AND BLOOD GLUCOSE LEVEL AMONG CATARACT PATIENTS AND HEALTHY INDIVIDUAL AT SMS MEDICAL COLLEGE AND ATTACHED HOSPITALS, JAIPUR

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Background: Cataract is a major cause of blindness and low vision worldwide. It is estimated that 44.1% of blind cases and 51.6% of patients with low vision have cataract. Relation of cataract with lipid profile is not clear and underlying mechanisms responsible for changes are unknown.

Aim: To compare levels of serum lipid profile in patients of Cataract with healthy controls.
Materials and Methods: After taking due permissions, study was conducted in Department of Biochemistry and Ophthalmology, SMS Medical College on 72 cases of cataract and 72 healthy controls. Serum Lipid profile were analyzed by GPO-POD, CHOD-POD enzymatic colorimetric assay and Accelerator Selective Detergent method and diagnosis of cataract by bio microscope evaluation.

Results: In cases were significantly more likely to have the higher plasma level of Tg , Chol and LDL in compare to control However, there were no differences between case and control group regarding the mean HDL.

Conclusion: Dyslipidemia maybe considered having an association with cataract directly or indirectly, therefor serum lipid profile parameters will help in prevention of cataract.

Keywords: cataract, blindness, serum lipid profile, dyslipidemia, enzymatic colorimetric assay.

OP. 19

STUDY OF INFLAMMATORY BIOMARKERS IN PATIENTS INFECTED WITH COVID-19

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Background: The ongoing COVID-19 pandemic has posed a huge threat to global public health. Numerous inflammatory markers are elevated in patients with severe disease including C-reactive protein (CRP) and interleukin-6 (IL-6).

Aim: To correlate serum CRP and serum IL-6 level in covid-19 patients and its relationship with severity of the disease.

Methodology: The study was conducted on three groups mild (N=30), moderate (N=30) and severe (N=30) covid-19 positive patients. Age matched covid-19 negative as controls (N=30) also recruited for this study. Serum IL-6 levels in covid-19 patients were measured by using an immune-enzymatic chemi-luminescence assay whereas serum CRP and measured by immune-turbidimetry method.

Results: We found that serum IL-6 levels and serum CRP level were significantly increased in covid-19 patient as compared to normal healthy controls. Our result shows that serum IL-6 levels and serum CRP level were increased as disease progress from mild to severe condition of Covid-19 patients.

Conclusion: Serum IL-6 increased in covid-19 due to enhanced cell mediate immune response while CRP increased due to inflammatory response, infection and tissue damage. Our results suggest that monitoring inflammatory markers may serve as an early warning system for progression to severe COVID-19.

OP. 20

ESTIMATION OF SERUM FERRITIN LEVELS IN PATIENTS WITH CHRONIC LIVER DISEASE AND ITS ASSOCIATION WITH MELD SCORE

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Background: Chronic liver disease (CLD) is a disorder involving impairment of liver function due to progressive destruction and simultaneous regeneration of the liver parenchyma. This leads to fibrosis and finally cirrhosis of liver. Various etiological factors are associated with Chronic liver disease such as Alcohol, Portal Hypertension, NASH, NAFLD, Hepatitis B,C and others.

Aim: To estimate the Serum Ferritin level and its association with the MELD score in CLD

Methodology: Observational Study, 300 patients diagnosed with CLD were enrolled in the study and grouped on the basis of MELD score. Blood samples were collected and analyzed for serum ferritin levels. Diagnosed cases of CLD with age 20-65 years were included and Patients with Acute liver failure, malignancies and pregnant and lactating females were excluded.

Results: Serum ferritin levels and its association were observed to increase with the severity of liver disease in respect to MELD score ($P=0.05$), ($r=0.134$). The categorization has done on the basis of MELD Grading as <9 ($n=63$), $10-19$ ($n=112$), $20-29$ ($n=83$), $20-39$ ($n=30$) and >40 ($n=10$).

Conclusion: A strong positive association of ferritin with MELD score suggests that its evaluation can be helpful in assessing the severity of liver tissue damage. Serum ferritin estimation has an important prognostic marker in various pathological conditions and early detection may be helpful in timely and suitable management of the patient.

Keywords: Creatinine, Bilirubin, INR, Cirrhosis.

OP. 21

A STUDY OF SERUM CRP AND URIC ACID IN PSORIASIS PATIENTS

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Background- Pathogenesis of psoriasis is multifactorial. Accordingly, CRP has been suggested to be a marker of inflammation in psoriasis. Main role of CRP has been shown to recognize potentially toxic autogenous substances that are released from the damaged tissue, to bind and detoxify them from blood. Its levels have also been correlated with the extent of the disease. Increased levels of uric acid may be associated with psoriatic skin disease. Hyperuricemia, in these patients, is a result of increased purine catabolism due to rapid epidermal cell turnover.

Aim- The aim of the study was comparison and evaluation of serum uric acid and CRP levels in patients suffering from psoriasis to healthy controls.

Methodology- For the study, fifty diagnosed patients with psoriasis together with fifty healthy controls were considered. The mean value of CRP and uric acid was ± 6.77 & ± 0.84 respectively in psoriasis patients and ± 0.51 & ± 4.81 respectively in control groups.

Results- Serum levels of uric acid and CRP between psoriasis cases and control groups were found to be statistically significant ($P < 0.0001$).

Conclusion- The present study suggested that high levels of serum uric acid and CRP may have a role in the etio-pathogenesis of the psoriasis patients.

Keywords- Psoriasis, Inflammation, C-reactive protein, Uric Acid

OP. 22

EVOLUTION OF SERUM ELECTROLYTES IN HEAD AND NECK CARCINOMA PATIENTS

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Background: Cancer is a group of diseases involving abnormal and uncontrolled cell growth. Among all the cancers, malignancies of the head and neck region are among the top five leading cancer sites in India. Disturbance in electrolytes (Na, K, Cl) is often associated with cancer patients.

Aims and objectives: The present study was planned to evaluate the levels of serum electrolytes in patients with head and neck carcinoma.

Methodology: In the present case control study, serum electrolytes were determined in 50 Head and Neck cancer patients and 50 age matched healthy individuals were taken as control. Diagnosed cases of Head and Neck cancer age above 18 years were included and patients on chemotherapy and radiotherapy and patients after surgery were excluded from the study.

Results: A significant decrease in serum electrolytes levels was noted in cases when compared with control group. Mean Sodium levels were in cancer patients (132.45 ± 7) mmol/L and in control group (138.6 ± 3.70) mmol/L. The mean K of control group was (4.27 ± 0.6) mmol/L and that of subject group were (3.60 ± 0.88) mmol/L. The mean Cl of control group was (103.86 ± 4.39) mmol/L and that of subject group was (99.94 ± 8.95) mmol/L.

Conclusion: Electrolyte imbalance is additional risk factor for Head & Neck cancer patients. Thus electrolyte levels will help the clinicians in evaluating the prognosis and proper monitoring of the cancer patients.

OP. 23

EVALUATION OF SERUM CERULOPLASMIN AND ITS ASSOCIATION WITH GLASGOW PROGNOSTIC SCORE IN PATIENTS WITH LUNG CANCER

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Background: Lung Cancer is among the most common cancer and is the leading cause of all cancer mortality worldwide. Ceruloplasmin is a multi-copper binding plasma protein, synthesized and secreted by the liver as well as monocyte/macrophage. Glasgow Prognostic Score (GPS) is a pre-operatively determined inflammation based score, composed of C-reactive protein (CRP) and Albumin and categorized into 3 categories i.e., GPS 0, 1 & 2.

Aim: The present study was planned to evaluate the level of Serum Ceruloplasmin and its association with the GPS in Lung Cancer patient.

Methodology: Observational Study. Serum Ceruloplasmin was determined in 50 Lung Cancer Patients (case group) and 50 age and sex matched healthy individuals (control group). GPS were calculated in Lung Cancer patients. Diagnosed cases of Lung Cancer with age 18-70 years were included and patients on Radiotherapy, Chemotherapy, Post-operative cases and patients suffering from any chronic disease were excluded from the study.

Results: A significant increase was found in serum ceruloplasmin levels among Lung cancer patients (58.58 ± 7.37), when compared with control group (27.54 ± 4.75). Among total 50 cases of Lung cancer, approximately 50% cases were in GPS 2 category and remaining 50% were in GPS 0 and 1 category. A positive correlation of Ceruloplasmin with GPS was observed.

Conclusion: Ceruloplasmin is suggested to have a better association with progression of malignant tumors. A positive correlation of Ceruloplasmin with GPS was observed, therefore, GPS in association with Ceruloplasmin can be used as adjuncts in the diagnosis as well as prognosis of malignancies.

Key words: C-reactive protein, Albumin, Malignancies, Tumor.

OP. 24

STUDY OF THYROID DYSFUNCTION IN TYPE 2 DIABETES MELLITUS: A COMPARATIVE CROSS- SECTIONAL STUDY

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Background: Type 2 diabetes mellitus (T2DM) is most common and thyroid dysfunction is second most common endocrine disorder in India. Thyroid dysfunction may increase the risk of cardiovascular events as well as alters insulin requirements in T2DM patients.

Aim: Aim of the present study was to find the prevalence of thyroid dysfunction in type 2 diabetes mellitus as compared to non-diabetic subjects.

Methodology: In this study, we included 100 type 2 diabetic subjects and 100 non-diabetic healthy subjects who attended OPD and admitted in medical wards of Dr. VMGMC, Solapur from October 2020 to October 2021. All these subjects were investigated for serum fasting and 2 hour postprandial sugar, total triiodothyronine (T3), total thyroxine (T4) and Thyroid stimulating hormone (TSH).

Results: Difference of values obtained for all three parameters (T3,T4 and TSH) between type 2 diabetics and non-diabetics was compared by using student unpaired t test using mean and standard deviation (SD) and for all the three parameters p value was <0.001. This means difference observed between type 2 diabetics and non-diabetics for all these three parameters was highly significant. Prevalence of thyroid dysfunction in type 2 diabetics was 56% (54% hypothyroidism, 2% hyperthyroidism) and that in non-diabetics was 30% (29% hypothyroidism, 1% hyperthyroidism).

Conclusion: Prevalence of thyroid dysfunction was significantly higher in type 2 diabetics (56%) than non-diabetic subjects with hypothyroidism being most common type of thyroid dysfunction.

OP. 25

HAEMOGLOBIN AND SERUM IRON STATUS AMONG SANITATION WORKERS IN A TERTIARY CARE COVID-19 HOSPITAL

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Background: Iron deficiency is the most prevalent global nutrient deficiency recognized by the World Health Organization that affects both developing and developed countries with serious consequences for human health. Delivery of health services to urban sanitation worker is often overlooked. Estimating and analysing the relationship between haemoglobin and serum iron will give an indication of health status in sanitation workers.

Methodology: This cross sectional observational study was conducted on 80 sanitation workers working in Dedicated COVID-19 Hospital for a period of six months. Haemoglobin estimation and serum iron was performed on a fully automated analyser.

Results: Out of 80 sanitation workers it was found that 28.2 % , 10.86 % females and 8.82% , 2.9% males were mildly and moderately affected by anaemia, respectively. The mean values of serum iron in males and female were 128.05 pg/dl and 83.67 pg/dl, respectively and this difference was statistically significant (p value=0.0003). There was a positive correlation between haemoglobin and serum iron (Pearson Correlation coefficient=+0.3802)

Conclusion: A positive correlation was found between haemoglobin and serum iron in sanitation workers. There is a need to address the health status of sanitation workers to curb the enduring burden of iron deficiency which has numerous adverse health consequences.

OP. 26

AN OBSERVATIONAL STUDY TO COMPARE SERUM MAGNESIUM IN PATIENTS OF POLYCYSTIC OVARIAN SYNDROME AND HEALTHY CONTROLS

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Background: Polycystic ovarian syndrome is the most common endocrinopathy in the women of reproductive age with a prevalence of approximately 7-10 % worldwide. It is diagnosed according to the new Rotterdam criteria (anovulation, androgen excess and polycystic ovarian morphology in ultrasound assessment).

Aims: To analyze and correlate serum magnesium in women with Polycystic Ovarian Syndrome and controls.

Methodology: After Ethical Committee approval, serum magnesium was measured by Xylidyl method in 70 PCOS cases and results were compared with 70 age and sex matched controls.

Results: A significant decrease in serum magnesium level was observed in cases as compared to controls ($p < 0.05$).

Conclusion: Serum magnesium levels were significantly decreased in PCOS patients suggesting increased urinary excretion of magnesium in the presence of elevated insulin. Administration of magnesium acts as a beneficial effect on dyslipidaemia of PCOS patients through the activation of LCAT and suppression of adrenergic activity. So, magnesium acts as a prognostic biomarker in PCOS patients.

OP. 27

A COMPARATIVE STUDY OF SERUM ELECTROLYTES, CALCIUM, MAGNESIUM IN PRE-ECLAMPSIA PREGNANCY AND HEALTHY CONTROLS AT SMS MEDICAL COLLEGE & ATTACHED HOSPITALS

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Background: Preeclampsia a pregnancy specific syndrome is one of the most common causes of maternal & fetal morbidity & mortality. Its exact etiology is not known, but it may be associated with alteration in electrolyte status. The electrolytes like calcium, magnesium, sodium and potassium contribute significantly in the normal functioning of the vascular smooth muscles in pregnancy.

Aim: To evaluate role of serum calcium, magnesium, sodium and potassium in Pre-eclampsia and to compare them with those in normal pregnancy.

Methodology: Study design - Cross Sectional Study. Study type - comparative analysis study. The study was conducted in the department of Biochemistry & Obs and gynae department, SMS Medical College, Jaipur. All pregnant women admitted at Zanana hospital were screened for inclusion criteria. All those meeting inclusion criteria, consent were taken from patients. Detailed history form will be filled. Collection of blood sample was done at 4 weeks. Special investigations done were calcium, magnesium, sodium & potassium.

Results: Serum calcium, magnesium, potassium were significantly decreased ($P < 0.01$) and serum sodium significantly increased ($P < 0.01$) in pre-eclamptics as compared to normal.

Conclusion: The study shows reduced levels of serum calcium, magnesium, potassium and increased level of sodium in patients of preeclampsia as compared to the normal pregnant women. Hypocalcemia, hypomagnesemia, hypokalemia and hypernatremia seen in the preeclamptic women may be responsible for the vascular pathology associated with onset of preeclampsia.

Keywords: Calcium, magnesium, sodium, potassium, pre-eclampsia.

OP. 28

AN OBSERVATIONAL STUDY TO COMPARE SERUM LIPID PROFILE AND LIVER ENZYMES AMONG TYPE-2 DIABETES MELLITUS PATIENTS AND HEALTHY INDIVIDUALS AT SMS MEDICAL COLLEGE & ATTACHED HOSPITALS

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Background: Liver is the critical site for carbohydrates and lipid metabolism. Any alteration in liver function may lead to altered metabolism of both glucose and lipids. Hence relationship must exist between lipid profile and liver function tests. At present India is the capital of DM disease in the world.

Aim: To study the correlation of liver enzymes and lipid profile in type 2 diabetes mellitus patients and healthy Controls.

Methodology: A hospital based cross sectional, observational study was conducted in the department of Biochemistry & Endocrinology department, SMS Medical College, Jaipur. All patients admitted at SMS hospital were screened for inclusion criteria. All those meeting inclusion criteria, consent were taken from patients. Detailed history form will be filled. Collection of blood sample at 4 weeks. Special Investigation was done AST, ALT, GGT, ALKP and Lipid profile.

Results: The biochemical parameters FBS, HbA1c, liver enzymes namely AST, ALT, ALP, GGT and lipid profile were raised significantly in T2DM patients compared to controls.
Conclusion: Routine analysis liver enzymes and lipid profile in type II diabetes mellitus patients, helps in early detection and prevention of liver injury and cardiovascular accidents.

Keywords: Diabetes mellitus, liver enzymes, lipid profile

OP. 29

SERUM PSA LEVEL IN TYPE 2 DIABETIC MEN

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Aim: To assess and compare the serum prostate-specific antigen (PSA) levels in men with type 2 diabetic subjects and non-diabetics control, to determine the effect of type2 diabetes mellitus (DM) on the serum level of prostatic specific antigen (PSA) in Hadoti region of Rajasthan (India).

Methodology: The study include 50 diabetic men aged 35-81 (55 ± 12)years and 50 non-diabetic men aged 45-79 (57 ± 10)years. Blood was collected and serum was analyzed for various biochemical parameters, fasting blood sugar, lipid profile, renal function tests, Prostate specific antigen and Glycated hemoglobin HbA1c.

Results: There is correlation between PSA and age in the group of men free from diabetes ($r=0.741$; $p<0.0001$), however it was lower in diabetic subjects ($r=0.140$; $p=0.332$). A lower PSA concentration is observed in with type2 diabetic men (diabetic mean PSA: 1.04 ng/dl, non-diabetic mean PSA: 3.4ng/dl, $p<0.0001$). A strong negative correlation found between serum HbA1c levels and serum PSA ($p<0.0001$ and $r= -0.0493$) concentrations in men with diabetic.

Conclusion: Our results suggest that values of serum PSA are less age dependent in type2 diabetic patient than in non-diabetics and there is significant impact of type2 diabetes mellitus on serum PSA.

OP. 30

AN OBSERVATIONAL STUDY TO COMPARE THE SERUM MAGNESIUM LEVEL AMONG POST MENOPAUSAL WOMEN HAVING CARCINOMA BREAST WITH HEALTHY POST MENOPAUSAL WOMEN

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Background: Carcinoma Breast has become a rapidly growing threat worldwide, it causes huge burden for people affected by it. Etiology of breast cancer is multifactorial. It has been proposed that magnesium is central in cell cycle, and that its deficiency is an important condition in precancerous cell transformation. Major purpose of our study was to find out the correlation of serum magnesium level with carcinoma breast.

Aim: To compare the serum magnesium level among post-menopausal women suffering from carcinoma breast with healthy postmenopausal women.

Methodology: An observational study was conducted in the department of Biochemistry and Surgery at SMS Medical College, Jaipur. Serum magnesium was measured in 30 patients of carcinoma breast and the results were compared with the 30 age matched controls.

Results: A significant decrease in serum magnesium level was observed in postmenopausal women with carcinoma breast compared to the healthy controls ($P < 0.05$).

Conclusion: Our study concluded that decreased serum magnesium level is associated with carcinoma breast. Hence, serum magnesium level may help in early diagnosis and treatment.

OP. 31

A COMPARATIVE STUDY OF SERUM ELECTROLYTES IN TYPE-2 DIABETIC PATIENTS AND HEALTHY CONTROLS AT SMS MEDICAL COLLEGE AND ATTACHED HOSPITALS, JAIPUR

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Background: Diabetes mellitus is the most common metabolic disorder characterized by chronic hyperglycemia resulting from defects in insulin secretion, insulin action or both. Various microvascular and macrovascular complications are produced by reactive oxygen species leading to oxidative damage which is generated by free radicals. Serum electrolytes play an important role in maintaining acid base balance, blood clotting and controls electrical gradient of the body fluids and muscle contractions. Electrolyte imbalance occurs in type-2 diabetes results from hyperglycemia and complication of diabetes.

Aim: To compare the serum electrolytes level in type-2 diabetes patients and healthy controls.

Methodology: This observational study was conducted in Department of Biochemistry and Endocrinology at SMS Medical College, Jaipur. 35 Type-2 diabetic patients and 35 healthy controls were included in study.

Results: A significant increase in serum potassium, increase in serum chloride and decrease in serum sodium level was observed in type-2 diabetic patients as compared to healthy controls ($p < 0.05$)

Conclusion: Our study concluded that increased serum potassium and serum chloride and decreased serum sodium level is associated with type-2 diabetic patients. Hence serum electrolytes level may help in early diagnosis and treatment of complications of type-2 diabetes mellitus.

OP. 32

STUDY OF ASSOCIATION OF SERUM URIC ACID AND SERUM MAGNESIUM LEVELS IN NON-ALCOHOLIC FATTY LIVER DISEASE

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Background: Non-Alcoholic fatty liver disease (NAFLD) is metabolic abnormality and different hepatic disorders. Hyperuricemia causes gout, impaired renal function, hypertension, hypertriglyceridemia and obesity, and Diabetes Mellitus. Magnesium is also a vital cation in neuromuscular function and bone formation, DNA transcription, protein synthesis and electrolyte balance. Hypomagnesemia is also associated with diabetes mellitus, hypertension and NAFLD.

Aim: To investigate the association of serum uric acid level and serum magnesium level with NAFLD.

Methodology: This cross sectional study was conducted in department of biochemistry and gastroenterology in SMS Medical College and Hospital, Jaipur. 30 NAFLD patients and 30 healthy controls were included.

Results: In our study there were 30 NAFLD patients as cases and 30 healthy in control group. Mean serum uric acid in case group were 7.9 ± 2.12 and that of control group it was 5.1 ± 1.79 . Mean serum magnesium in case group were 1.4 ± 0.77 and that of control group it was 2.5 ± 0.91 . The difference in uric acid and magnesium levels between cases and control were statistically significant.

Conclusion: Study concluded that increased serum uric acid and decrease serum magnesium concentrations are a risk factor in NAFLD. The possible pathogenic role of uric acid and magnesium in NAFLD and the metabolic syndrome deserves to be further studied.

Keywords: Serum uric acid, Serum magnesium, NAFLD

OP. 33

COMPARISON OF PERFORMANCE OF RAPID ANTIGEN TESTING FOR COVID-19 WITH RT-PCR TEST

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Background: Rapid diagnosis of COVID-19 is important to reduce the spread of disease. The current gold standard is reverse transcription- PCR (RT- PCR) but these tests are technically demanding and time consuming. Rapid Antigen Test (RAT) using antibodies are cheap, easy-to-use, and rapid tools but their comparative studies with RT- PCR are few.

Aims: To compare the performance of the RAT (Meril Diagnostics) for COVID 19 to RT-PCR test for detecting Severe Acute Respiratory Syndrome Corona virus 2 (SARS-CoV-2).

Methodology: RAT was performed on nasopharyngeal swab sample immediately after collection following the manufacturer's instructions (reading at 15 min). Simultaneously a nasopharyngeal swab sample was also collected in the universal Viral Transport medium for RT-PCR test which was done within 24 hours of specimen collection.

Results: Out of 218 patients, most patients belonged to 20-40yrs age group. Correlation of result was seen in 88% samples, 87 samples were positive while 105 samples were negative by both RT-PCR and RAT. Sensitivity and specificity of RAT was 80.5% and 95.45% respectively.

Conclusion: These results showed that RAT can be done on peripheral site to rapidly identify infectious people capable of transmitting SARS-CoV-2 during emerging outbreaks in densely populated areas.

OP. 34

EPIDEMIOLOGICAL AND DEMOGRAPHIC PROFILE OF COVID-19 SUSPECTS IN A TERTIARY CARE HOSPITAL AT JAIPUR, RAJASTHAN

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Background: The COVID-19 pandemic has quickly spread to various countries, with many cases having been reported worldwide and was declared as pandemic. Demographic data are important to understand the impact of COVID-19 across the country and also provide information on an appropriate response, planning, and allocation of resources.

Aims: To estimate epidemiological and demographic parameters like age, sex, area, sample type, etc. of laboratory based COVID-19 positive patients.

Methodology: This is a retrospective study conducted in a tertiary care hospital in Jaipur. Demographic data were collected from 1st January 2021 to 30th 2021. The data were expressed as counts, number, and percentage (%).

Results: From January to June 2021, April 2021 and May 2021 showed high positivity 13084 (27.42%) and 10968 (23.06%) respectively. February 2021 and June 2021 showed least positivity 156 (2.39%) and 163 (0.8%) respectively. Males were affected more than females. In April and May 2021 positivity in urban area was 6053 (46.26%) and 5712(52.07%) respectively, while in rural area 7031 (53.74%) and 5256 (47.93%) respectively. 19 to 40 years age group was most affected followed by 41 to 60 age group. Among COVID-19 suspects, positivity rate was low in IPD patients as compared to OPD patients.

Conclusion: During second wave both urban and rural area was affected equally but earlier urban areas were affected more. There was more prevalence of males as compared to females. Surveillance and contact tracing are critical components of an effective public health response to COVID-19.

OP. 35

PREVALENCE AND SEASONAL VARIATION OF CHIKUNGUNYA INFECTION AMONG PATIENTS ATTENDING A TERTIARY CARE HOSPITAL

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Background: Chikungunya fever is a re-emerging acute febrile illness caused by arboviruses and presenting with acute fever and severe arthralgia. In India several outbreaks were reported during 1963-1973. In 2005 chikungunya re-emerged in India. Human transmission occurs by, Aedes mosquito, primarily Aedes aegypti which bites during day time. Symptoms are often confusing with that of dengue.

Aims and Objectives: To determine seroprevalence of chikungunya virus among clinically suspected cases and to determine the seasonal trends of chikungunya infection

Methodology: A total of 26758 serum samples of clinically suspected chikungunya patients were collected from January 2020 to October 2021 and analysed for IgM antibodies by ELISA method (NIV) and any variations in disease reporting by gender, age and season were assessed.

Results: Out of the total 26758 serum samples, 2219 samples (8.29 %) were found positive for chikungunya IgM antibodies. The positivity was significantly high among males and the most common affected age group was 11-30 year, the maximum rate of positivity in the month of February 2021 (18.71%) followed by October 2020 (15.50%) and September 2020 (15.38%). A rising trend was seen in the subsequent months post monsoon in the year 2020 and continued till March 2021.

Conclusion: The present study confirms that chikungunya is a disease of monsoon and post monsoon and affects humans of all age groups.

OP. 36

ANTIMICROBIAL SUSCEPTIBILITY PATTERN OF UROPATHOGENIC ESCHERICHIA COLI INFECTION IN A TERTIARY CARE HOSPITAL AT JAIPUR

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Background: Escherichia coli has been known as the most common cause of urinary tract infections in both inpatient and outpatient departments. Current Antimicrobial susceptibility patterns are essential to effectively manage the Urinary tract infection (UTI) cases caused due to Escherichia coli.

Aims & objectives: To determine antibiotic susceptibility pattern of Escherichia coli isolates in UTI cases from a tertiary care hospital at Jaipur, Rajasthan.

Methodology: One hundred and eleven isolates of Escherichia coli, processed by conventional culture method and biochemical reactions were subjected to Antibacterial susceptibility testing using Kirby Baur disc diffusion method.

Results: Nitrofurantoin was the most susceptible antibiotic showing sensitivity in 92.3% of isolates. Ampicillin showed highest resistance followed by fosfomycin with 99% and 93% resistance respectively. Sensitivity pattern of various antibiotics were; amikacin 84.1%, cefoperazone/ sulbactam 68.5%, piperacillin/tazobactam 64.5%, ceftazidime/clavulanic acid 57.89%, imipenem 48.8%, aztreonam 48.7%, co-trimoxazole 39%, amoxyclav 31.9%, ceftazidime 31.9%, ceftriaxone 27.9%, cefepime 25.5%, ciprofloxacin 25.39%, norfloxacin 23.39%, fosfomycin 6.97%.

Conclusion: Escherichia coli, the prominent uro-pathogen, showed significant multidrug resistance to commonly prescribed antibiotics for management of UTI, form a basis for preliminary management of UTI in starting empirical therapy before susceptibility results obtained.

OP. 37

HEPATITIS B, C AND HIV INFECTIONS AMONG BLOOD DONORS IN ZONAL BLOOD BANK J.L.N. HOSPITAL AJMER

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Background: Blood transfusion is one of the most important tools in modern medical therapy and saving patient's life is its aim. Hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV) infections are coincidentally found in blood donors, which can be life-threatening. Keeping this scenario in mind, this study was done.

Aim: To study the occurrence of HIV, HBV, and HCV and their co-infections among blood donors.

Methodology: A retrospective observational data based study was conducted from January to Dec. 2019 at the Zonal Blood Bank of the JLN Hospital Ajmer. Serologic screening for HBsAg, anti-HCV and anti-HIV1/2 for all samples were confirmed by ELISA.

Results: A total of 7580 donors were identified. Out of which 7505 were male and 75 were females. The median age of donors was 31 years (range: 19 to 50 years). Among blood donors HIV, HBV and HCV infection occurrence was 0.04 %, 0.75% and 0.066% respectively. No Coinfection was observed among HIV, HBV and HCV.

Conclusion: There is a need to review policies for blood collection from donors, by modifying the algorithm of blood donors testing. Pretesting potential donors using rapid tests could help to avoid collection and destruction of (infected) blood.

OP. 38

A COMPARATIVE ANALYSIS OF CLINICAL, DEMOGRAPHIC AND MORTALITY INDICATORS BETWEEN FIRST AND SECOND COVID WAVE IN A COVID DEDICATED TERTIARY CARE HOSPITAL AT JAIPUR RAJASTHAN

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Background: SARS-COV-2 virus causing Covid-19 disease caused disruptive pandemic. A comparative analysis of first wave and second wave would suggest policy-makers better management of Covid-19 recurrence or its severity.

Aim: To compare clinical characteristics, age distribution, gender and mortality indicators between first and second wave of Covid-19 in a Covid-dedicated hospital at Jaipur.

Methodology: This is a retrospective study in a Covid-dedicated tertiary care hospital at Jaipur, Rajasthan. Comparison of related data was done between the first wave (August – December 2020) and the second wave (April – June 2021).

Results: Out of 5838 RT-PCR covid positive patients admitted in 1st wave, 4333 were males and 1505 were females and in 2nd wave out of 5841 positive patients, 3946 were males and 1895 were females indicating male preponderance. Most affected age in first wave was 51-70 years (35.02%) followed by 31–50 (32.6%) while in 2nd wave most affected age group was 31-50 years (39.7%) followed by 18-30 (28.9%). Symptoms were mild in first wave while second wave had serious complications. Mortality was significantly higher in 2nd wave (5.5% v/s 1.1%).

Conclusion: There was a shift of positivity and severity towards the younger age in second wave mostly related with vaccination status. Males were more affected due to more mobility and carelessness. Severity was higher in second wave therefore vigilance is required for newer variants.

OP. 39

CLINICAL, SEROLOGICAL, SEROTYPING & MOLECULAR DIAGNOSIS OF PREVALENT DENGUE INFECTION AT A TERTIARY CARE HOSPITAL IN NORTH INDIA

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Background: Dengue is an acute viral vector borne infection which presents as an uneventful pyrexia to a fatal complication. This article highlights the clinical manifestations of Dengue infection & the various serological tests that were used for its laboratory diagnosis including serotyping and RT-PCR.

Aim: To Diagnose prevalent Dengue infection by Clinical, Serological & Serotyping methods in the patients coming to the hospital with acute febrile illness. To perform RT-PCR on Dengue NS1Ag positive samples for viral RNA confirmation.

Methodology: Serum samples from about 500 suspected cases of Dengue were collected between September and November 2021. Samples were tested for Dengue NS1Ag by ELISA, Chikungunya IgM by ELISA and Widal by slide method. Clinical profiles of hospitalized patients were also analyzed. Serotyping and RT-PCR of Dengue NS1 Ag positive samples was also done.

Results & Conclusion: The most common clinical symptom in Dengue NS1Ag positive patients were fever, thrombocytopenia, rash & elevated liver enzymes. The Dengue specific NS1 Ag & IgM antibodies were present in about 20% samples. Dengue RNA was demonstrated in about 18% samples. The most common serotype detected in the tested samples was DEN-2.

The surveillance of the Dengue viruses needs to be closely monitored for the emergence of newer serotypes especially in endemic areas with seasonal epidemicity.

OP. 40

SEASONAL VARIATION OF SEROPREVALENCE OF DENGUE INFECTION AMONG PATIENTS ATTENDING A TERTIARY CARE HOSPITAL, JAIPUR

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Background: Dengue fever is increasingly becoming a predominant mosquito-borne disease in urban India. It is caused by arbovirus and presents with a wide spectrum of clinical manifestations ranging from self-limiting asymptomatic infection to severe fatal infection like dengue haemorrhagic fever and dengue shock syndrome.

Aims: To determine the seroprevalence of the dengue virus among patients presenting with fever. To study the monthly distribution of dengue cases during the period of study.

Methodology: We collected serum samples from clinically suspected dengue patients during the period from November 2020 to October 2021. We analysed the collected samples for IgM antibodies by ELISA method (TRUSTwell dengue IgM ELISA kit). We collected the data on gender, age, and month.

Results: During the period of study, we collected a total of 20, 291 serum samples. A total of 2,177 (10.72%) samples tested positive for dengue; 1,183(54.3%) were male and 994 (45.7%) were female. The mean age of the positive cases was 29.4 years. On an average 1691 tests (SD \pm 4.37, median 1322, range 405 to 4173) were conducted per month. A maximum of 20% of all tests was conducted in October'21 and a minimum of 2% of all tests was conducted in May'21. The positivity rates varied from 5% in June'21 to 21% in October'21.

Conclusion: The cases of dengue fever showed remarkable seasonal variation with the number of suspected cases, confirmed cases and positivity rate being highest during the immediate post-monsoon period. Further, dengue was seen predominantly among men.

OP. 41

EARLY DIAGNOSIS OF DENGUE VIRUS INFECTION BY DETECTION OF NONSTRUCTURAL PROTEIN 1 (NS1) IN A TERTIARY CARE HOSPITAL, SOUTHERN RAJASTHAN

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Background: Dengue fever is a mosquito borne arboviral infection caused by four serotypes of dengue virus (DENV) endemic in tropical and subtropical regions. Dengue virus (DENV) nonstructural protein 1 (NS1) has been used as a novel diagnostic marker during the early phase of DENV infection. The non-structural protein NS1 is considered an important diagnostic marker for acute infection from the first day after onset of infection, whereas IgM is generally detectable after 4–6 days.

Aim: To evaluate NS1 antigen detection ELISA for the early laboratory diagnosis of dengue virus infection.

Methodology: The present study was conducted to evaluate the overall positivity of NS1 antigen detection ELISA in a blood specimen collected July to December 2021. Result: A total 2318 blood serum samples were processed, in which 744 specimens detected as positive for NS1Ag by ELISA. Most of the positive patient for NS1Ag had a history of fever since 2-3 days, they further categorized by demographic profile i.e Age/sex/area of residence.

Conclusions: NS1 antigen detection ELISA is highly suitable diagnostic tools and it also has great value for use in outbreak and epidemic situations.

Keywords: Dengue, NS1 Ag, ELISA, Southern Rajasthan.

OP. 42

CORRELATION OF HISTOPATHOLOGICAL AND INTRAOPERATIVE FROZEN SECTION DIAGNOSIS OF CENTRAL NERVOUS SYSTEM TUMOUR: A THREE-YEAR RETROSPECTIVE STUDY

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Background: Frozen section interpretation assists the neurosurgeon in making precise judgment regarding the nature of lesion and line of management on the operating table.

Aim: To evaluate the diagnostic accuracy of frozen sections in cases of CNS tumours with histopathological evaluation.

Methodology: This was a retrospective three-year study of all the frozen section of CNS tumours received in histopathology lab from January 2018 to December 2020. All the Frozen sections which were subsequently histopathologically evaluated on permanent paraffin embedded section were included in this study.

Results: A total of 47 cases were reviewed. Accuracy of Frozen section was found to be 91.5%, Specificity was 90.9%, Sensitivity was 91.2%, Positive predictive value was 97.1% and Negative predictive value was found to be 80%.

Conclusion: Frozen section proved to be a useful and highly accurate procedure, However few limitations and diagnostic challenges are observed which could be rectified by establishing better communication with neurosurgeon and improving diagnostic skills.

OP. 43

CORRELATION OF FNAC WITH HISTOPATHOLOGY IN VARIOUS LESIONS OF THYROID

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Background: FNAC is considered the gold standard diagnostic test for the diagnosis of thyroid nodules. FNAC is a cost effective procedure that provides specific diagnosis rapidly with minimal complications. Based on the cytology findings patients can be followed in cases of benign diagnosis and subjected to surgery in cases of malignant diagnosis, thereby decreasing the rate of unnecessary surgery.

Aim: To do clinical assessment of different types of thyroid swelling and to correlate FNAC and Histopathology of those thyroid swelling.

Methodology: A prospective study was conducted on 30 patients from November 2020 to October 2021. Only those thyroid swelling cases were included that underwent FNAC and Surgery both. After histo-pathology they were compared with preoperative FNAC report.

Results: Among 30 cases of thyroid swellings that underwent surgery and subsequent histopathological study, 28 cases showed positive correlation between FNAC and histopathology result. Benign lesions were most common among the thyroid swellings (83%) and followed by malignant lesions (17%). The diagnostic accuracy of FNAC for thyroid swellings in this series was 93.3%.

Conclusion: FNAC is a simple, safe and cost effective modality in investigation for diagnosis of disease with high accuracy and specificity. It is recommended as the first line for the diagnosis of solitary thyroid nodule. The suspicious indeterminate results prove to be an area of uncertainty which can be resolved by surgical resection and biopsy.

OP. 44

CLINICOPATHOLOGICAL STUDY OF GIST IN A TERTIARY CARE CENTRE– TWO YEARS EXPERIENCE

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Background: Gastrointestinal stromal tumours (GISTs) are the most common sarcoma of the gastro-intestinal tract.

Aim: To evaluate clinic-pathological features, treatment and its effects in patients with GISTs

Methodology: This is a retrospective study conducted in two year period. 12 patients with confirmed histopathological diagnosis of GIST and their epidemiological, personal, pathological and treatment data were noted.

Results: In the present study median age was 51.1 years and 67% were male. The most common site was stomach (67%) followed by jejunum (17%), mesentery (8%) and transverse colon (8%). Out of 12 specimens, 10 were resected, out of which one received Neo-adjuvant chemotherapy and two were trucut biopsies. Clinically they presented with chronic abdominal pain and fullness. Radiology showed a solid, heterogeneous submucosal mass. Histopathology showed mean size of tumour was 8.16 cm and all the tumours had spindle cell morphology. Eleven patients had low grade and one had high grade disease. All patients presented with localised disease with no lymphovascular invasion and no metastasis. 9 patients were classified as low, one very low and two as high on risk assessment. IHC available for 6 cases, one showed isolated DOG–1 positivity and rest showed both CD-117 and DOG-1 positivity. Follow-up of all patients on treatment with Imatinib was available for 1 year in which no recurrence/metastasis was noted.

Conclusion: Present study provided information on the clinic-pathological characteristics and epidemiology of GIST.

OP. 45

CLINICAL AND HISTOPATHOLOGICAL CORRELATION OF OVARIAN NEOPLASM IN A TERTIARY CARE HOSPITAL

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Background: Ovarian mass is common form of neoplasm in women. The estimated ageadjusted incidence varies from 0.9-8.4 per 100,000 women in India. The incidence of ovarian neoplasm increases with age. It is the third most common site of primary malignancy in female genital tract after cervix and endometrium accounting for 30% of all cancers of female genital tract.

Aim: To study the clinical and histopathological correlation of ovarian neoplasms.

Methodology: This study was done at Mahatma Gandhi Medical College and Hospital, Jaipur. The data collected consist of relevant information about age, parity, clinical symptoms, provisional diagnosis and histopathological correlation.

Results: In the present study total 65 cases of ovarian neoplasm were studied. 43.1% were benign and 56.9% were malignant neoplasm. Among the malignant cases studied the most common encountered was surface epithelial tumors and benign cases also showed predominance to surface epithelial tumors.

Conclusion: Ovarian mass present in various clinical and histopathological forms. Proper clinical and histopathological correlation of ovarian neoplasm helps in early diagnosis as well as prognosis of ovarian tumors. Histopathological examination remains the gold standard for diagnosing ovarian neoplasm.

OP. 46

CORRELATION OF CERVICAL PAP SMEAR WITH BIOPSY IN THE LESION OF CERVIX

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Background: In developing countries, cancer of uterine cervix is ranked second with a relative frequency of 15% of all cancers in women. Screening women with regular Pap smears allows diagnosis of treatable pre-invasive lesions. If treated in the earlier stages the patient can often be cured of the disease. The use of cervical smear (Papanicolaou/Pap) as a screening tool has significantly reduced the incidence of cervical cancer.

Aim: To evaluate the histopathological correlation with cervical cytological among patients attending Pacific institute of medical sciences.

Methodology: A retrospective study was conducted over 6 month period from April 2021 to September 2021. Total number of 50 patients with complaints of vaginal discharge, irregular bleeding and pain abdomen were randomly selected.

Results: Maximum cases were reported as NILM (59%), followed by ASCUS (16%), LSIL (15%), HSIL (7%), squamous cell carcinoma (1.6%). On histopathology, cases were diagnosed as chronic cervicitis, cases as chronic cervicitis with cervical erosion moderate dysplasia, CIN I (22.4%), CIN II (4.0%), CIN III (2.8%), squamous cell carcinoma (1.6%) and (0.8)% cases of adenocarcinoma.

Conclusion: Pap smear is a screening test, biopsy confirmation is necessary after positive pap smear. Histopathology is gold standard in diagnosis of any malignant lesion.

OP. 47

HISTOMORPHOLOGICAL STUDY OF VARIOUS SKIN LESIONS IN PUNCH BIOPSY SPECIMENS

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Background: Dermatological lesions are common in all nations but the incidence and spectrum varies from place to place. The spectrum varies according to gender and they can be broadly categorized into non-neoplastic lesions and neoplastic lesions.

Aim: To study histomorphological findings of various skin lesions in punch biopsy specimens

Methodology: A retrospective study was done in the pathology department from January 2021 to November 2021. The skin biopsies were processed, sectioned and stained with haematoxylin and eosin and evaluated. A convenience sampling method was used.

Results: Among 40 cases, 16 were males and 24 were female with male to female ratio being 2:3. Out of 40 cases, 28 were non-neoplastic lesions and 12 neoplastic lesions. Among non-neoplastic lesions most common lesions found was chronic non-specific dermatitis (25%). Out of 12 neoplastic lesions most common lesions found was squamous cell carcinoma (33%) followed by basal cell carcinoma (16%).

Conclusion: Dermatological lesions are the cutaneous manifestations of before intrinsic and extrinsic environmental agents. Various lesions have been reported ranging from non-specific inflammatory dermatoses to infective dermatoses and neoplastic lesions.

Keywords: Skin lesions, Non-neoplastic lesions, Infectious Dermatoses, Neoplastic lesion.

OP. 48

HISTOPATHOLOGICAL STUDY OF LOWER GASTROINTESTINAL TRACT LESIONS

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Background: The large intestine and anal canal are sites of broad array of non-neoplastic and neoplastic diseases, which can lead to serious complications. The definitive diagnosis of lower gastrointestinal tract disorders rests on the histopathological confirmation and one of the bases for future treatment and prognosis.

Aim: To study histopathological spectrum of lesions in the lower gastrointestinal tract.

Methodology: A retrospective study was carried out including various intestinal biopsies sent for histopathological examination at Department of Pathology, from January 2021 to November 2021. The biopsies received were processed, sectioned and stained with haematoxylin and eosin and evaluated.

Results: Total 60 specimens of lower gastrointestinal tract lesions were evaluated. Intestinal lesions were more common in males irrespective of age and site of lesion and male to female ratio was 2:1. Of the 60 cases, 48 (80%) were non neoplastic lesions and 12 (20%) were reported as neoplastic lesions. Among 48 non neoplastic lesions most common was appendicitis (50%). Out of 12 neoplastic lesions most common was Adenocarcinoma rectum (41%) followed by Adenocarcinoma colon (33%).

Conclusion: The lower gastrointestinal tract shows a wide variety of spectrum of lesions. The present study emphasizes the value of histopathology in diagnosing lower gastrointestinal tract lesions and helping the clinicians for appropriate treatment, avoiding the complications and improving the survival of the patients.

OP. 49

FINE NEEDLE ASPIRATION CYTOLOGY STUDY OF CERVICAL LYMPH NODES IN A TERTIARY CARE CENTER

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Background: Fine needle aspiration cytology (FNAC) is a simple, reliable and an inexpensive diagnostic method. Cervical lymph nodes are a common site of metastasis of different cancers and in such cases FNAC helps to diagnose metastasis and also give a clue about origin of primary tumor.

Aim: To highlight the role of FNAC as a diagnostic tool in metastatic lymphadenopathy of neck region

Methodology: Patients referred for undergoing FNAC having suspected neck nodes were studied and relevant clinical data was collected. Duration of study was from January 2021 to November 2021. 50 cases of clinically diagnosed metastatic carcinoma were selected.

Results: Diagnosis in 50% cases was metastatic squamous cell carcinoma. 85% cases were seen in males, in age group above 50 years. 28% cases had primary site in oral cavity.

Conclusion: FNAC is useful to diagnose metastasis in neck lymph nodes.

OP. 50

HISTOPATHOLOGICAL SPECTRUM OF URINARY BLADDER NEOPLASM IN TERTIARY CARE HOSPITAL

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Background: Urinary bladder neoplasms are associated with significant mortality and morbidity throughout the world. It is 9th most common cancer worldwide. The clinical significance of bladder tumor depends on their histological grade, differentiation and depth of invasion of the lesions.

Aim: To study histopathological spectrum of urinary bladder neoplasm and to assess this lesion with regard of age, sex and correlation of muscle invasion with tumor grade.
Methodology: Total 58 biopsy (53TURBT and 5 Radical cystectomy specimen) were studied retrospectively over a period of April 2019 to August 2021 in the department of pathology, GMCH, Udaipur. These lesions were classified according to WHO classification 2016.

Result: The male to female ratio was 7.2:1 and age ranged from 41 to 85 years. Most common presenting symptom was hematuria (91.37%). Most common lesion were infiltrating urothelial carcinoma (36 cases) comprising of 33 (91.66%) cases of high grade and 3 (8.33%) cases of low grade malignancy. Out of 33 high grade-infiltrating urothelial carcinoma cases 25 (75.75%) cases show muscle invasion. 19 cases were noninvasive urothelial lesions, 1 case was squamous cell carcinoma.

Conclusion: Urothelial carcinoma (TCC) is the most common primary bladder carcinoma. Male are affected more common than Female. Peak incidence is seen in sixth decade of life. High grade tumor is common associated with muscle invasion.

OP. 51

HISTOPATHOLOGY! GOLD STANDARD TO DIAGNOSE MUCORMYCOSIS IN COVID-19 PATIENTS AND ITS MICROBIOLOGICAL CORRELATION

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Background: The pandemic of coronavirus disease 2019 (COVID-19) continues to be a major problem worldwide. Although COVID-19 cases are declining worldwide, an emerging new problem, mucormycosis, commonly known as 'black fungus' is a challenge to healthcare professionals. It is a serious, but rare opportunistic fungal infection that spreads rapidly and hence prompt diagnosis and treatment is necessary. Mucormycosis is caused by the mucormycetes, a group of molds, with *Rhizopus* and *Mucor* as the most common species.

Aims: To find the correlation between histopathological and microbiological findings in COVID-19 positive mucormycosis patients and to determine the gold standard investigation for the diagnosis of mucormycosis in COVID-19 patients.

Methodology: We took six months data of proven COVID-19 patients on treatment along with complete clinical profile, radiological investigations including NCCT head, nose and paranasal sinuses with histopathological findings including gross examination of the resected biopsy specimen, microscopic examination and special stains like periodic acid Schiff and methenamine silver used for the identification of the fungus and microbiological findings including KOH mount for the fungus and the fungal culture.

Results: Total 50 cases of mucormycosis were included in the study. Out of which (52%) cases showed correlation of histopathology and microbiology and the rest (48%) cases did not show positivity on microbiology.

Conclusion: Histopathology is the gold standard investigation for the diagnosis of mucormycosis.

Keywords: Mucormycosis, COVID-19, Molds, *Rhizopus*, *Mucor*

OP. 52

HISTOPATHOLOGICAL EVALUATION OF LIVER BIOPSY IN VARIOUS LIVER DISEASES

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Background: Liver biopsy (LB) is the gold standard method for assessment of liver histology. It provides valuable, otherwise unobtainable information, regarding the degree of fibrosis, parenchymal integrity, degree and pattern of inflammation, bile duct status and deposition of materials and minerals in the liver. This information provides immense help in the diagnosis and prognostication of a variety of liver diseases.

Aim: To study histopathological findings of liver biopsies in various liver diseases.

Methodology: A retrospective study was conducted from January 2021 to November 2021 in Department of Pathology. The study included 20 liver biopsies. Sections were stained with H & E and examined under light microscope. Special stains were done in specific cases and the histopathological findings were recorded along with clinical markers SMA, ALKM1, IgG, IgM. Results: Out of 20 liver biopsies, various histopathological findings included hepatitis (12), Hepatocellular carcinoma (2), cirrhosis (2), cholestatic changes with jaundice (2) and Tubercular pathology (2).

Conclusion: The histopathological study of liver biopsy confirmed by markers for autoimmune hepatitis with special stains and clinical correlations forms the cornerstone in the diagnosis and management of various hepatic diseases. Keywords: Hepatocellular carcinoma, Hepatitis, Liver biopsy, Histopathology.

OP. 53

TO DETERMINE EFFICACY OF BONE MARROW ASPIRATE SMEARS IN CASES OF PANCYTOPENIA IN A TERTIARY CARE CENTER

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Background: Pancytopenia is defined as the triad of Anemia, Thrombocytopenia and Leukopenia occurring simultaneously. It may be a result of various disorders primarily or secondarily showing involvement of the bone marrow. Bone marrow aspiration plays a pivotal role in determining the cause of pancytopenia.

Aim: To identify the underlying causes of pancytopenia

Methodology: A retrospective study was undertaken from November 2018 to November 2021, i.e. for a period of 3 years on 40 patients of pancytopenia. Relevant history and physical examination findings were recorded. After taking consent bone marrow aspiration was performed from posterior iliac crest of patients and smears were stained with Leishmann stain. Inclusion Criteria included cases with Hemoglobin < 10gm%, TLC < 4000/cumm. And Platelet count < 1 lakh/cumm.

Results: A total of 40 cases of pancytopenia were evaluated in this retrospective study during period of 3 years. The commonest cause of pancytopenia seen on bone marrow aspirate smears was Megaloblastic anemia (17 cases; 42.5%) followed by Aplastic anemia (10 cases; 25%) other causes include Acute leukemia (09 cases; 22.5%) and plasma cell dyscrasias (05 cases; 12.5%).

Conclusion: Bone marrow aspiration is an important technique which can diagnose majority of cases of pancytopenia. Megaloblastic anemia is the most important cause of pancytopenia. A detailed clinico-hematological study of the patients with pancytopenia can help in identification of the underlying disease process.

OP. 54

SPECTRUM OF CERVICAL LESIONS AND CYTO-HISTOLOGICAL CORRELATION IN POSTMENOPAUSAL WOMEN: A HOSPITAL BASED STUDY

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Background: Cervical cancer is a preventable disease in the vast majority of women. Pap smear is the most cost-effective, non-invasive and a technically easy screening tool. Any abnormality detected in Pap smear has to be confirmed with cervical biopsy, which is the gold standard for diagnosing cervical lesions.

Aim: To study the cyto-histomorphology of different cervical lesions among postmenopausal women and to calculate the sensitivity and specificity of Pap smear in diagnosing invasive malignancy.

Methodology: The study was conducted at Pathology Department for 6 months from May 2021 to October 2021. Conventional pap smears as well as cervical biopsies from postmenopausal women were received from Department of OBG. The results of cervical cytology were compared and confirmed with the cervical histopathology.

Results: 74 Pap smears of postmenopausal women were interpreted; histologic correlation was possible in 27 cases. Out of those, 08 (10.8%) were normal smears, 04 (5.4%) were atrophic, 35 (47.3%) were inflammatory smears. Atypical squamous cells of undetermined significance (ASC-US) were 06 (8.1%) cases, 07 (9.5%) were reactive cellular changes associated with inflammation, 01 (1.4%) low grade squamous intraepithelial lesion (LSIL), 01 (1.4%) high grade squamous intraepithelial lesion (HSIL) and 01 (1.4%) case of squamous cell carcinoma was observed in our study on cervical cytology. 11(14.8%) smears were unsatisfactory for evaluation. There was no statistically significant difference between the Pap smear and histopathology results.

Conclusion: Pap smear test was found equally sensitive to histopathological examination for early detection of different cervical lesions.

OP. 55

CYTO-HISTOLOGY AND CLINICAL CORRELATION OF THYROID LESION: A 3 YEAR STUDY IN A TERTIARY CARE HOSPITAL

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Background: Fine needle cytology (FNC) is inexpensive and rapid diagnostic test used to evaluate benign and malignant lesions by cytology and confirmed by histology.

Aim: To evaluate specificity sensitivity and accuracy of FNAC in diagnosis of all thyroid lesions and to correlate clinico-cytological diagnosis with histopathology.

Methodology: A total of 121 patients with thyroid lesions were included in this study that had FNC during 3 years study period, from Jan 2019 to Nov 2021. All patients were evaluated by medical history, clinical examination, biochemical tests and radiological investigations. The FNC findings were correlated with clinical examination, radiological investigations, hormonal findings and subsequent histological examination of the thyroid specimens.

Results: Out of 121 patients, females outnumbered males in thyroid diseases and revealed preponderance toward young population (20-40 years). Nodular goiter was the most common cause of thyroid swelling presented during 1 month to 3 year period. There were 51 patients (42%) who had surgical intervention and 58 % patients reported for follow up and had thyroid function tests done. The diagnostic accuracy, sensitivity, and specificity for malignancy were 91.07%, 54% and 100% respectively.

Conclusion: FNC is a reliable, safe, cost-effective and accurate method as an initial simple diagnostic test for thyroid nodules in decision making about surgical intervention. Our study suggested that FNC and FNAC has higher specificity than sensitivity in detecting thyroid malignancy; hence its use as a reliable diagnostic tool for evaluation of thyroid swelling cannot be overemphasized.

OP. 56

ASSESSMENT OF SERUM FERRITIN LEVELS IN TRANSFUSION-DEPENDENT THALASSAEMIC PATIENTS AT RNT MEDICAL COLLEGE

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Background: In Transfusion dependent thalassaemic patients, multiple blood transfusions, ineffective erythropoiesis and increased gastrointestinal iron absorption leads to iron overload in the body. Iron overload impairs the immune system, GIT, Cardiovascular system, Nervous system etc, placing patients at greater risk of infection and illness. Iron overload can be determined by Serum Ferritin measurement.

Aim: To assess the serum ferritin levels in Transfusion dependent thalassaemic patients and to estimate the present situation of awareness of iron overload in them.

Methodology: Ninety six blood samples from clinically diagnosed thalassaemic patients, who were blood transfusion dependent, were collected from Thalassaemia ward, Paediatrics Department, RNT Medical College, Udaipur, for their serum ferritin estimation. Serum Ferritin measurement was performed using indirect enzyme linked immune sorbent based serum ferritin assay kit. Data were analyzed to determine association between variables. The association between age, sex, and serum ferritin level were established.

Results: 86.4% of the Transfusion dependent thalassaemic patients showed very high ferritin levels (normal -12-250ng/ml).The mean serum ferritin levels was found to be 2968 ng/ml. 62.4% patients had serum ferritin between 1000 to 2500 ng/ml, while 24% patients had values above 2500 ng/ml. These levels reflect poor knowledge among patients and their attendants, inadequate chelation and vulnerability to develop iron overload related complications.

Conclusion: There is an urgent need to rationalize the chelation therapy and to create awareness about the consequences of iron overload in the patients, so that with the help of timely intervention they can live a good quality life. The study showed high levels of serum ferritin in transfusion dependent thalassaemic patients which give an overall bleak view.

OP. 57

ABO DISCREPANCIES IN HEALTHY VOLUNTARY BLOOD DONORS AND PATIENT REQUIRING BLOOD TRANSFUSION USING SEROLOGICAL WORKUP

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Aim: To study ABO discrepancies observed in healthy voluntary blood donors and patient requiring blood transfusion using serological workup at RNT Medical College, Udaipur.

Methodology: This is an observational, descriptive study of ABO blood group discrepancy in patients requiring blood transfusion and healthy donors at Department of immuno-haematology and transfusion medicine RNT Medical College, Udaipur from 1st November 2020 to 30 April 2021 till the designed sample size is achieved after approval from institutional ethical committee and research review board.

Results: The study analysis of ABO discrepancies showed the incidence in donor populations 23 out of 11993 (0.19%) and 13 out of 7582 (0.17%) in patients population. So in general population incidence of ABO discrepancy was found to be 0.19%. Also p value of patient group is found to be <0.000001 which is significant and donors is 0.4617 which is insignificant indicating that solving discrepancies in patient is more important than donors

Conclusion: To study ABO discrepancies observed in healthy voluntary blood donors and patient requiring blood transfusions in serological workup at RNT Medical College, Udaipur was found statistically Insignificant.

Keywords: ABO, Discrepancies, RH Disease

OP. 58

EVALUATION OF CRANIOVERTEBRAL JUNCTION ABNORMALITIES WITH THE HELP OF MAGNETIC RESONANCE IMAGING AND MULTIDETECTOR COMPUTED TOMOGRAPHY

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Background: Craniovertebral junction (CVJ) abnormalities constitute an important group of treatable neurological disorders caused by various etiologies. Their precise diagnosis, identification of probable etiology, and pre-treatment evaluation significantly affects prognosis and quality of life of patients. Hence, in every patient presenting with these features, CVJ abnormalities should be excluded.

Aim: To study the utility of MRI and multi detector computed tomography in evaluation of craniovertebral junction abnormalities and to study the most common developmental and acquired CVJ abnormalities.

Methodology: 50 patients referred to the Department of Radiodiagnosis, all clinically suspected to have a CVJ disorder were included in the study. Detailed clinical history was taken. The abnormalities involving CVJ were grouped as developmental/congenital, traumatic, degenerative, infective, inflammatory and neoplastic. All patients were subjected to MDCT and/or MRI.

Results & Conclusion: Developmental anomaly appears to be the commonest CVJ abnormality. Most prevalent CVJ anomaly is basilar invagination out of which BI-II is more common than BI-I. Platybasia and Klippel-Feil syndrome are more commonly seen with BI-II. Basilar invagination with atlanto-occipital assimilation is the commonest combination. Type II odontoid fracture is the commonest CVJ injury. MRI is better for demonstration of ligaments and cervico-medullary junction distortion in all patients, whereas MDCT is better for demonstration of osseous abnormality. The angular craniometry differs among different types of craniovertebral junction anomalies. Many CVJ abnormalities are not isolated. Therefore, a detailed examination of the different bone and soft-tissue structures is essential for diagnosis of CVJ abnormalities, management, prognosis and quality of life of patients.

OP. 59

EFFECT OF COVID-19 VACCINATION ON OUTCOME OF PATIENTS WITH COVID-19 INFECTION-A RETROSPECTIVE OBSERVATIONAL STUDY

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Background: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and the resulting coronavirus disease 2019 (Covid-19) have distressed tens of millions of people in a worldwide pandemic. Safe and effective vaccinations are needed crucially.

Aim: To evaluate the efficacy of COVID-19 vaccination based on outcome of hospitalised COVID19 infected patients.

Material and method: In this single hospital based retrospective observational study, we enrolled 225 patients admitted under Department of Respiratory Medicine and General Medicine at Pacific Institute of Medical Sciences, Udaipur, Rajasthan between period of April 2021 to June 2021. Demographic data, co-morbidities, hospital stay and vaccination statuses were all collected. Outcome in terms of hospital stay and mortality were compared among non-vaccinated, partially vaccinated and fully vaccinated patients.

Result: Among 225 covid-19 infected cases, 159 patients (70.7%) had not taken vaccine at the time of admission, out of which 38 (23.8%) did not survive while rest 121 survived. Among 58 partially vaccinated patients, 24.1% did not survived and out of 8 fully vaccinated patients, 62.5% patients recovered and 37.5% died. Among 159 non-vaccinated patients, 18.2% patients required more than 10 days of hospital stay while out of 58 partially vaccinated patients, 24.1% patients required more than 10 days hospital stay. However, among 8 fully vaccinated patients, none of required more than 10 days stay.

Conclusion: A chi-square test of independence showed that there is no statistically significant association between vaccination and mortality ($p = 0.682$), and hospital stay($p = 0.687$). However, safe vaccination should remain an absolute priority.

OP. 60

PATTERN OF OUTCOME OF COVID-19 PATIENTS ON THE BASIS OF CLINICODEMOGRAPHIC PROFILE

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Background- Severe acute respiratory syndrome corona virus-2 with pneumonia like clinical manifestations emerged 1st in December 2019 and quickly escalated into a pandemic. With high person-person transmission, it has serious implications on health, economy and mental well-being and the clinical outcome of COVID-19 patients is variable in different countries.

Aim: To study the pattern of outcome of COVID-19 patients on the basis of their clinic-demographic profile.

Methodology: A retrospective observational tertiary care hospital based study was done that included COVID-19 positive patients admitted to the Institution from March 2021 to June 2021. Only patients with moderate and severe disease were admitted, rest were advised home quarantine. Besides patient profile & clinical course, oxygen requirement, ICU utilization rate, need for ventilator support, associated comorbidities and outcome was studied.

Results: Out of 265 patients, 66.4% were males & 33.5% females with a mean age of 51.4 +/- 13.65 year. Shortness of breath & cough were predominant presentations (71.6%) with 31.1% of patients having 50-75% lung involvement and 13.5% having >75% involvement. ICU utilization rate was 42.3%, however only 5.5% patients required mechanical ventilation. The mortality rate was 21% with hypertension (44%), diabetes (34%) and CKD (8%) being the most frequent comorbidities. More than 50% of lung involvement, pre-existing comorbidities and Intensive care unit necessity were the important parameters contributing towards mortality.

Conclusion: This study gives a better insight into the clinical and demographic profile and outcome of the patients hospitalized with COVID-19 illness by providing us a baseline data which will help us combat the pandemic swiftly in future.

OP. 61

TO IDENTIFY THE INCIDENCE AND RISK FACTORS OF EMERGENCE AGITATION FOLLOWING NASAL SURGERY UNDER GENERAL ANAESTHESIA: A PROSPECTIVE OBSERVATIONAL STUDY

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Aim: To identify the incidence and risk factors of Emergence Agitation (EA) following nasal surgery under general anaesthesia (GA).

Methodology: All consecutive patients between age group 17-70 yrs, ASA I-III, posted for elective nasal surgery under GA were assessed for EA post-operatively till discharge from PACU and 24 hours after the surgery. Patients diagnosed with neurological disease, on neuroleptics/ benzodiazepines or antidepressants for >2 weeks prior to surgery were excluded from the study. Patients in the post-anaesthesia care unit with a Richmond Agitation Sedation Scale?+1 at any time were considered to have EA. Parametric data was presented as mean and non-parametric data was compared using chi square test. Relative risk was calculated for incidence of EA, while associated risk factors were analysed by logistic regression. P value <0.05 was considered significant.

Result: The overall incidence of agitation was 27.5%. Univariate analysis showed that Visual anxiety scale?5, males, smoking, hypertension, use of benzodiazepines, ASA II,III>I, post-op pain and prolonged sevoflurane use were associated risk factors for development of EA.
Conclusion: EA following GA in nasal surgery remains a significant post-anaesthetic problem that interferes with post-operative recovery. Therefore, understanding risk factors is important for appropriate differentiation and treatment of agitation in such patients.

OP. 62

A COMPARATIVE STUDY BETWEEN ULTRASOUND GUIDED QUADRATUS LUMBOEUM BLOCK VERSUS TRANSVERSUS ABDOMINIS PLAN BLOCK IN OPEN ABDOMINAL SURGERY FOR POST OPERATIVE ANALGESIA

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Background: USG guided quadratus lumborum block (QLB) has provide a different approach in covering both somatic as well as visceral pain. It has shown greater efficiency in post op analgesia in abdominal surgeries then USG guided transversus abdominis plan (TAP) block.

Aim: This study has done to compare the USG guided quadratus lumborum block versus transversus abdominis plan block in open abdominal surgery for postoperative analgesia. **Methodology:** Sixty four patients (age 20-60 year) were randomly allocated into two groups where Group Q = patients received USG guided bilateral QLB with bupivacaine 0.25% (20 ml) on each side (n=32) and Group T= patients received USG guided bilateral TAP block with bupivacaine 0.25% (20 ml) each side.

The outcome is pain score as measured by VAS at 1, 2, 4, 6, 12, and 24 hours. Duration of analgesia measured by time to rescue analgesia and complications and compared between two groups.

Statistic Analysis : The data were analysed using Statistical Package for Social Sciences (SPSS) version 20.0. For continuous variables, paired or unpaired student t-test was used and for categorical data, chi-square test or Fischer test (whichever applicable) was used. VAS Pain Score was analysed using Mann Whitney U-test. A probability of $P < 0.05$ was considered statistically significant.

Results: The time to first rescue analgesia was 5.69 hour in group Q and 4.56 hour in group T. VAS score at postoperative hours 8, 12, 24 were significantly less in group Q, group Q shows significantly less no of requirement of rescue analgesia.

Conclusion: Patients who received QLB provide longer duration of analgesia, the significant reduction in total VAS score and no of rescue analgesia.

OP. 63

ROLE OF CT SCAN AND MRI IN DIAGNOSIS OF CYSTIC LESIONS OF BRAIN

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Background: In the diagnostic workup of intracranial cystic lesion, the primary goal of the imaging studies is to detect the abnormality, and determine its site, size, nature, extent, characterize the lesion and provide a list of differential diagnosis. The multiplanar capability of MRI & MDCT is very helpful to determine the anatomic site of origin of lesion and to determine its extent into the adjacent compartment and brain structures.

Aims: To differentiate the different cystic lesions according to their pathological classification, to locate the exact site, size, extension and multiplicity of the lesion and to take biopsy of lesion and aspiration of the cyst.

Methodology: This study presents the data of 50 patients from all age groups and both genders referred to the department of Radiodiagnosis, Geetanjali Medical College .It aims at diagnosing the cystic lesion of brain in patient referred from our hospital and from outside with complain of neurological symptoms. Already diagnosed cases of cystic lesions which need follow up were also included. Detailed clinical history was taken. All patients were subjected to MDCT and/or MRI and contrast MRI was done.

Results: Most common age group in our study is 41-50yrs (19.27%) followed by 21-30yrs (18.35%). The incidence of male and female in our study is 60.55% and 39.45% respectively. The most common congenital lesion is mega cisterna magna (31.03%)followed by epidermoid (20.69%)The most common infectious lesion is tuberculoma (38.89%) followed by NCC (33.3%).The most common tumor is glioblastoma multiformis (40.54%) followed by metastasis (24.32%).

Conclusion: Appropriate correlation of the CT and MRI features with clinical history and appearance of these lesions can assist in improving the diagnostic yield. Familiarity with the features of intracranial cysts is therefore an extremely valuable tool and by carefully following a algorithmic approach, one can easily arrive on the correct diagnosis on the basis of CT and MRI evaluation.

OP. 64

A PROSPECTIVE STUDY ON VARIOUS COMPLICATIONS OF INTESTINAL STOMA AND THEIR MANAGEMNT

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Background: A stoma formation is a lifesaving procedure, and as a surgeon we must realise and cope with the emotional as well the functional impairment that a patient having a stoma goes through particularly in the early post-operative stages. This is why any suggestions in the management of stoma, or change in surgical technique which seem to have merit.

Aim: To identify the complications encountered during and after the creation of stoma and their management

Methodology: The study is designed to carry out prospective evaluation of the patients admitted to general surgical wards. All patients who were operated in the institution only for creation of an intestinal stoma either as an emergency or as an elective procedure were included.

Results: Complications were more in emergency (75%) as compared to elective surgery (33.3%) in case of intestinal stoma formation. Complications were more in loop ileostomy (43.1%) as compared to other stomas. Most common complication reported was skin excoriation irritation followed by SSI.

Conclusion: Complications were more in the patients who underwent stoma formation as an emergency procedure as compared to those who underwent stoma formation as an elective procedure. Among diverting stomas loop ileostomy had fewer complications as compared to loop colostomy, so loop ileostomy should be favored over loop colostomy in de-functioning low colorectal anastomoses.

OP. 65

A PROSPECTIVE STUDY OF PRIMARY CLOSURE, RESECTION ANASTOMOSIS AND PRIMARY ILEOSTOMY IN PATIENTS WITH ILEAL PERFORATIONS

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Background: A number of studies have been undertaken to find the best surgical treatment for ileal perforation. Each modality has its own drawbacks manifested in the form of anastomotic leakages, increased morbidity and mortality. The study is to prospectively compare the outcome of primary closure, resection anastomosis, and ileostomy in cases of ileal perforations

Methodology: A total of 90 patients meeting the inclusion criteria admitted in emergency of general surgery department were selected and placed into 3 groups depending upon the outcome of laparotomy. i.e. Primary closure; Resection anastomosis and Primary ileostomy.

Results: 22.2%, 31.1% and 46.7% of the patients underwent Primary closure, Resection anastomosis and Primary ileostomy respectively. Wound Dehiscence, Hypotension and ileostomy related complications were significantly higher among the patients with Primary ileostomy ($p < 0.001$). Fistula and Relaparotomy were higher among the patients with Resection anastomosis, but not significant ($p > 0.05$).

Conclusion: In cases where patients present within 72hrs & minimal soiling of the peritoneal cavity and healthy bowel, either primary closure or resection and anastomosis are an ideal procedure.

OP. 66

MANAGEMENT AND OUTCOME OF ABDOMINAL WALL CLOSURE IN EMERGENCY LAPAROTOMY AT A TEACHING HOSPITAL

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Background: Abdominal wall closure has remained a procedure that often reflects a surgeon's personal preference with a reliance on tradition and anecdotal experience. The best abdominal closure technique should be fast, easy, and cost-effective. Present study will evaluate the advantages of mass closure in comparison with the layered closure by postoperative morbidities such as wound infection, burst abdomen and incisional hernia.

Aim: To compare the postoperative outcome for layered closure and mass closure in emergency laparotomy.

Methodology: It was an observational, prospective, analytical, single blind clinical study. Sampling technique: patients who underwent anterior abdominal incisions (midline or paramedian) for emergency laparotomy; under inclusion and exclusion criteria were divided under 2 groups. Patients under Group 1 underwent mass closure of abdomen-midline, prolene or Polydioxanone. Patients under Group 2 underwent layered closure of abdomen-paramedian, prolene or Polydioxanone.

Results: comparison of post-operative complications of laparotomy wounds like seroma, wound infection, wound gaping, burst abdomen and incisional hernia between both groups. In mass closure patients post-operative complications were 3 (6%). In layered closure patients post-operative complications were 8 (16%). In absorbable (PDS) suture post-operative complications were 4 (8%). In non-absorbable (prolene) suture post-operative complications were 7(14%). In interrupted/continuous closure post-operative complications were 7/4, Incisional hernia in one patient of layered closure technique. Post-operative complications related to sepsis/pulmonary complications were 5(10%)/4(8%).

Conclusion: Mass closure, absorbable suture, continuous technique is better in term of incidence of postoperative complications.

OP. 67

COMPARATIVE STUDY OF SKIN INCISION WITH SCALPEL VS DIATHERMY IN HERNIA REPAIR SURGERIES: A PROSPECTIVE STUDY

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Introduction: Due to increase in seroconversion rate in doctors due to using sharp instruments led to alternate use of sharpless instruments like diathermy

AIM: To compare the efficacy of skin incision made by the scalpel vs diathermy in hernia repair surgeries.

Methodology: This was comparative study conducted in the Department of General Surgery, from January 2020 to March 2021. Patients were fully informed about the study protocol and a written informed consent was obtained from all the patients undergoing surgery.

Results: In our study, patients in the diathermy group showed a lower blood loss, postoperative pain, surgical site infection and scar formation when compared to the scalpel group.

Conclusions: Diathermy is a safer and effective alternative to scalpel blade for making skin incisions in hernia repair surgeries.

OP. 68

FLUOROTIC SPINE: AN INSTITUTIONAL EXPERIENCE

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Background: Fluorosis is considered as a disease of Asian origin. The optimum fluoride level of water should be 1 ppm, but consuming water with 3-5 ppm will not produce skeletal fluorosis in individuals with healthy kidney. Carrying heavy loads on back and head increases fluorotic changes. Thus, cervical spine is most commonly affected by fluorosis because of increased mobility. Fluorosis leads to ossification of posterior longitudinal ligament that result in myelo-radiculopathy.

Aim: To study etiology and surgical outcome of compressive myelopathy in regions of southern Rajasthan

Methodology: Participants of study were symptomatic patients with myelo-radiculopathy who were diagnosed by clinical presentation and standard radiographs of spine. Sample size of 100 patients was collected from August 2017 –November2021. Detailed history of clinical features was collected with neurological examination. Surgical techniques included posterior decompression, decompression and fusion.

Results: It has been observed through this study that fluorotic spine most commonly affects cervical region (70%) while only 30% included dorsal and lumbar region with male predominance. It is one of the most common causes of myelopathy in southern Rajasthan, India.

Conclusion: It has been observed through this study that fluorotic spine is a very crippled and disabling disease that can only be treated surgically. So, prevention is the best possible approach to tackle fluorosis, since no cure at present is possible once disease sets in.

OP. 69

A CLINICO-PATHOLOGICAL STUDY OF BENIGN BREAST DISEASE- AT TERTIARY CARE CENTRE

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Background: Benign breast diseases are at least 10 times more common than breast cancer in developed countries. It deserves attention because of their high incidence, their impact on women's life and due to cancerous potential of some histological types.

Aim: To evaluate the overall spectrum in relation to age, sex and clinical presentation in a tertiary care center.

Primary objective: To evaluate and correlate the role of FNAC and histopathological report with clinical examination for differentiating benign and malignant lesion.

Secondary objective: To evaluate and correlate the clinico-radiological presentation of the benign breast diseases.

Methodology: A prospective observational study was conducted at a tertiary care centre where total of 64 patients were taken. Detailed clinical history and examination was done and then compared to histopathological, FNAC, and radiological results.

Results: Out of the 61 female patients, fibroadenoma was found most common followed by fibrocystic disease and breast abscess. Most common age group was found to be 2nd decade of females having firm, painless swelling as their chief complaints. Accuracy of HPE, radiological and FNAC results were compared with clinical diagnosis.

Conclusion: Benign breast diseases are common among young females. Triple assessment is a gold standard approach to breast disease management.

OP. 70

A CLINICO PATHOLOGICAL STUDY AND MANAGEMENT OF NECROTIZING FASCIITIS

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Background: Necrotizing fasciitis is an infection occurring in the deep fascial layers. It is a progressive and severe flesh-eating disease of soft tissue characterized by widespread infection of the fascia with necrosis. It may lead to MODS and shock rapidly. The diagnosis is usually clinical and is important to find it early as it is a fast spreading infection.

Aims: To analyze the presentation and reasons that predispose to necrotizing fasciitis along with associated comorbid condition, its microbiology and surgical & resuscitative management and outcome

Methodology: This study was conducted in Department of Surgery from October 2020 to December 2021. A total of 107 patients having necrotising fasciitis were admitted in this period. The diagnosis was confirmed by detailed history and physical examination followed by haematological, microbiological and radiological investigations priority wise. After initial resuscitation patients were taken to OT where debridement was done. Most of the dressings used were silver sulfadiazine or iodine depending upon the sensitivity to sulpha group.

Results: Diabetes mellitus was the most common predisposing factor (65.4%), followed by trauma (28%). Perineum and thigh were the most commonly affected sites (70%). Most patients (84%) presented with skin erythema and blistering. Fever and tachycardia were seen in almost all patients (95%). Leukocytosis and neutrophilia were seen in 91.5%. Most common organisms isolated were E. coli and proteus. Mortality rate was 24.29%.

Conclusions: Necrotizing fasciitis is a flesh eating, highly lethal disease. Early diagnosis, early and radical surgical debridement supported by appropriate antibiotic and correction of metabolic disorder are the cornerstones of successful management.

Keywords: Debridement, Gangrene, Necrotizing fasciitis

OP. 71

A PROSPECTIVE STUDY TO COMPARE THE SAFETY, EFFICACY AND SHORT TERM OUTCOME OF TURP (TRANSURETHRAL RESECTION OF PROSTATE) AND THULEP (THULIUM LASER ENUCLEATION OF PROSTATE)

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Background: Benign prostatic hyperplasia (BPH) is a common urological disease that affects aging men all over the world causing lower urinary tract symptoms. Monopolar TURP is considered as the gold standard of endoscopic surgical treatments for BPH using monopolar energy to resect the prostatic tissue. In ThuLEP, thulium laser is used to enucleate the prostatic adenoma from the capsule following which the capsular bleeding vessels are coagulated establishing a bloodless field and minimal energy exposure on the pericapsular tissue.

Aim: The study focuses on the comparison of the safety, efficacy and clinical outcomes between ThuLEP and TURP for treating symptomatic benign prostatic hyperplasia.

Methodology: 57 patients included in this study were systematically divided into 2 groups with 27 patients in ThuLEP group and 30 patients in TURP group.

Results: Parameters such as the duration and volume of irrigation fluid used, time to hematuria clearance, duration of postoperative catheterization and the hospitalization time, fall in hemoglobin and sodium levels were all significantly lower in the ThuLEP group when compared to the TURP group. However, ThuLEP had a significantly longer operative time. On 3 month follow up, International Prostatic Symptom Score were comparable between the two procedures.

Conclusion: When compared to the gold standard TURP, ThuLEP is a superior modality when it comes to the above mentioned parameters.

OP. 72

POST SURGERY OUTCOMES FOR TEMPORAL LOBE & EXTRA TEMPORAL EPILEPSY DISORDER RESISTANT TO MEDICATIONS

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Background: Our aim was to follow up patients of temporal lobe and extra temporal epilepsy postoperatively to identify seizure remission and relapse after surgery and to enable individuals considering surgery to make informed choices.

Methodology: Nineteen consecutive patients operated for drug resistant Temporal lobe & extra temporal lobe epilepsy between 2019 and 2020 at our centre were included in our study. All the patients had at least one year post surgery follow-up.

Results: The mean age of study population was 20.87 ± 10.08 years. The mean age of onset of epilepsy in study population was 14.9 ± 8 years. There were no acute postoperative seizures. The most common histopathological finding was hippocampal sclerosis in 15 patients. The patients were followed up and 15 were in the class 1 of engel classification. 2 in class 2, rest had one each

Conclusion: Following surgery approximately half of patients were seizure free and Engel's favourable outcome was noted. The predictors of unfavourable outcome were younger age of onset and prolonged duration and of epilepsy.

OP. 73

EFFICIENCY AND TOLERANCE OF INTRAVENOUS IRON SUCROSE THERAPY IN PREGNANT WOMEN WITH IRON DEFICIENCY ANEMIA

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Background: During pregnancy, anaemia is most often (about 80%) caused by iron deficiency and occasionally by more complex conditions involving deficient production or accelerated destruction of erythrocytes. The aim of this study is to observe rise in haematological parameters and side effects after treatment with iron sucrose.

Methodology: The study included 45 antenatal patients with period of gestation from 32 to 35 weeks having iron deficiency anaemia with haemoglobin levels 7–9 g% (Moderate anaemia) and serum ferritin levels less than 12 ng/ml. Intravenous iron sucrose was given in the dose of 100 mg on alternate days, according to the calculated dose. Patients were observed for side effects or anaphylactic reactions. Any minor or major side effects were documented.

Results: Significant difference in the mean values of Haemoglobin, MCV and serum ferritin values were seen. 90% of the patients had no side effects. Chills and rigor was the most common side effect (4%). Only 1 (2%) case of headache, nausea and thrombophlebitis was seen.

Conclusion: Intravenous iron sucrose is as effective in improving haemoglobin, haematocrit values in the treatment of iron deficiency anaemic during pregnancy.

OP.74

ROBSON 10 GROUP CLASSIFICATION

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Background: Robson 10 group classification first published in 1997 aims to prospectively identify well defined clinically relevant groups of women so that differences in CD rates within homogenous groups could be investigated. The classification system can be used to compare CD rates over time to improve perinatal care and maternal and newborn outcomes. The group designed to be simple, mutually exclusive but completely inclusive, clinically relevant and based on obstetric characteristics and the information required to place a women into a group is collected routinely for all maternity patients. This classification characterizes all women according to four objective and mutually exclusive characteristics of pregnancy.

Aims: To understand the various sections of Robson's 10 group classification, to determine the relative contribution of each group, to identify the modifiable groups to reduce CS rates.

Methodology: It is cross sectional retrospective study of 1 year duration at pannadhay mahila chikitsalaya hospital. All booked and unbooked patients are included in the study. Conclusion: Group 5 (multiparous women with atleast one previous uterine scar with a single vertex pregnancy at ≥ 37 weeks gestation) of robson has the maximum contribution and most common indication of CS in our hospital is previous lscs with refusal of trial.

OP. 75

ADMISSION TEST AS A SCREENING TEST TO PREDICT FETAL OUTCOME

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Background: The admission test (AT) has been carried out for many years, but there are still debates about the prognostic value of the test.

Aim: To examine the value of AT in predicting the adverse outcome in neonates

Methodology: This study is a prospective cross sectional study comprising of 100 singleton pregnancies with cephalic presentation in early labour admitted to the labour room. Based on the results, women were divided into 2 groups of normal and abnormal ATs. All patients were followed up until the delivery, when the status of mother and neonate was determined. Main outcomes of the study were caesarean rate, neonatal intensive care unit admission, fetal demise, neonatal acidosis, and Apgar score. Independent t-test, chi-square test, Fischer exact test, and logistic regression were used for statistical analysis.

Results: Out of 101 pregnant women studied, 34 (33.3%) had abnormal ATs with a mean age of 29 (+/-4.5) years. Multivariate analysis showed that an abnormal AT was able to predict the incidence of caesarean section, intrauterine growth restriction, turned cord and APGAR<7, but it could not predict neonatal death and hypoxia.

Conclusion: The AT was shown to be a useful screening test with risk factors such as oligohydraminos, bloody and meconium ammiotoc fluid, IUGR, and turned cord. Additionally, the test was able to predict NICU admission and the need for caesarean section, but it could predict the occurrence of neonatal death.

OP. 76

RISK FACTORS AND FETO-MATERNAL OUTCOME AMONG CASES OF PLACENTAL ABRUPTION

Dr. Hari Singh, Dr. Savitri Sharma

Aim: To determine frequency, obstetrical risk factors and feto-maternal outcome in women suffering from placental abruption.

Methodology: A retrospective case study carried out in the Department of Obstetrics and Gynaecology, SHKBM, Jhalawar Medical College, Jhalawar, Rajasthan from 1st May 2020 to 30th April 2021. All women with diagnosis of placental abruption having more than 28 weeks of gestation were included in the study.

Results: Total number of deliveries conducted was 4062 in labour ward. 114(2.8%) women had abruption placentae. 102 women were un-booked and 86% patients were multiparous. Maternal complications which were observed include 52% patients were preterm, postpartum haemorrhage seen in 14.8%, Dissemination intravascular coagulation in 1.4% and renal failure in 4.2%. Commonest medical disorders observed in women were Anaemia (74%) and Pre-eclampsia/Eclampsia (34%). Maternal death was seen in 5 cases. Adverse fetal outcome was characterised by a low APGAR score at 1 min and 5 min in 32% cases with high stillbirth rate of 46%.

Conclusion: In our setup incidence of abruption placenta is high as most of the women belong to rural areas with poor socio-economic status. Abruptio placenta is associated with adverse maternal and fetal outcomes.

OP. 77

FETO-MATERNAL OUTCOME IN RH NEGATIVE MOTHERS

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Background: Rhesus (Rh) incompatibility refers to the discordant pairing of maternal and fetal Rh type. It is associated with the development of maternal Rh sensitization and hemolytic disease of the neonate (HDN). An individual can be classified as Rh-positive if their erythrocytes express the Rh D antigen; otherwise, an individual is Rh negative if they do not.

Aims: To find out the foeto-maternal outcome of Rh negative women during pregnancy

Methodology: The present study was carried out in 50 patients who were attending antenatal clinic and were admitted in obstetric Department.

Results: Maximum 46 cases delivered at 38-40 weeks, 1 case delivered after 40 weeks and 3 patients delivered between 30-38 weeks. Maximum 39 cases delivered normally and 11 required caesarean section. 7 cases were associated with PIH/preeclampsia and only 1 was associated with polyhydramnios. 2 cases were associated with abruption placentae.

Conclusion: The newer treatment modalities like intra uterine transfusion and Intra venous immunoglobulin helps further to reduce the overall mortality and morbidity. Further it is expected that the above techniques combined with antepartum and postpartum immune-prophylaxis a further decline in the incidence of Rh negative and so the perinatal mortality can be lowered down.

OP. 78

RETROSPECTIVE ANALYSIS OF ELECTIVE HYSTERECTOMY CASES AT A TERTIARY CARE HOSPITAL

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Background: Hysterectomy is the second most common surgery done in women, next only to caesarean section. However, it is resented by most women. But in several cases hysterectomy comes out to be the only rational option available as the indications include various clinical entities severely hampering the patient's health. Hysterectomy is done through various routes viz., abdominal, vaginal and laparoscopic. This usually depends on the surgeon's preference and patient's choice.

Aims: To study the various indications of hysterectomy and to correlate the clinical findings with histopathological findings.

Methodology: A retrospective analysis of 380 cases of elective hysterectomy from August to October 2021 was done from hospital records. Epidemiological details, clinical indication for hysterectomy, route of hysterectomy main postoperative histo-pathological diagnosis was recorded and analysed.

Results: A total 380 cases of hysterectomy were done during the study period. The most common age group was 43-51years of age group. Major clinical indication was dysfunctional uterine bleeding and fibroid uterus. Most common histopathological finding was Leiomyoma.

Conclusion: Hysterectomy was mostly indicated in 4th decade of age and onwards. Dysfunctional uterine bleeding was the most common clinical indication for hysterectomy. Fibroid uterus was the most common histopathological finding for which elective hysterectomy was performed.

OP. 79

EVALUATION OF PELVIC PAIN BY CLINICAL EXAMINATION, ULTRASONOGRAPHY AND DIAGNOSTIC LAPAROSCOPY

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Aim and Objectives: To evaluate pelvic pain by clinical examination, ultrasonography & diagnostic laparoscopy and to study the advantages and disadvantages of diagnostic laparoscopy.

Methodology: This is an observational study carried out from June 2021 to October 2021. Study population included patients of all age groups attending gynecology OPD with complains of acute or chronic pelvic pain. Sample size consisted of 20 patients after applying the inclusion and exclusion criteria.

Results: Out of 20 patients included in this study, majority i.e. 50% of patients lie in the age group of 20-30 years. According to parity, majority were nullipara and from urban background. All patients underwent detailed per abdominal, per vaginal, colposcopic examination of vulva and vestibule, followed by bimanual pelvic examination and recto-vaginal examination. All baseline blood investigations, urine culture and routine microscopy test and vaginal swab culture were done. The study proves high efficacy of laparoscopy and ultrasound in diagnosis of pelvic pain where clinical examination fails.

Conclusion: In this present series, no abnormality could be detected by clinical examination in 57% cases but laparoscopy and ultrasound revealed various types of findings leading to diagnosis of exact cause. If left undiagnosed, the patients would have suffered a lot had the cause not been identified and treated.

OP. 80

MATERNAL AND FETAL OUTCOME IN PRETERM PREMATURE RUPTURE OF MEMBRANE

Dr Pooja kumari

Aim: To study the maternal and fetal outcome in women with premature rupture of membranes.

Methodology: Prospective analytic hospital based study, study population include 100 obstetrics cases of singleton pregnancy with gestational age of 28 week to 36 week with spontaneous rupture of membranes over a period of 2years. 100 pregnant women without PROM up to 36 completed week taken as control. Detailed workup including history, general physical examination, abdominal and pelvic examination and relevant specific investigation were noted in a proforma.

Results: PROM occurred more frequently in primigravida ($p = 0.679$). Risk factors were unknown factors 71% and history of coitus 5% UTI ($P = 0.001$). Incidence of LSCS was higher in PROM than in controls ($p < 0.05$). Out of all vaginal deliveries, patients with spontaneous labour were 69.86%, while 30.14% were induced. 60% of cases were spontaneous out of which 51% delivered successfully vaginally and 9% landed in cesarean section. 16% were given prostaglandin gel, out of which 10% delivered successfully. 8% were augmented by oxytocin, of which 6% delivered successfully and 2% landed in cesarean section. Out of 100 cases studies, 24% accounted for respiratory distress syndrome, while 6% in control group and 12% had septicemia in study group ($p = 0.001$), while conjunctivitis, neonatal jaundice and intraventricular haemorrhage accounted for 2%, 3%, and 2% each.

Conclusion: Present study concluded that most common cause of PPRM was unknown. Most common cause of maternal morbidity was Puerperal fever and of neonatal morbidity was Respiratory distress. Maternal and fetal morbidity increases with increase in duration between rupture of membranes and delivery, so augmentation of labour should be done.

OP. 81

EVALUATION OF MATERNAL AND FETAL OUTCOME IN COVID-19 POSITIVE PREGNANT WOMEN

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Background: The novel coronavirus disease (COVID-19) is the most challenging health crisis today that we are facing. Against the backdrop of this pandemic, it becomes imperative to determine the effect of this infection on pregnancy and its outcome.

Aim: To determine to evaluate the maternal and foetal outcome in COVID positive pregnant women.

Methodology: In this retrospective study, we included all pregnant women admitted with COVID-19 over period of 15 April 2021 to 31 May 2021. clinical features and feto-maternal outcomes were assessed.

Results: The incidence of COVID positive pregnant women was found to be increased may be because of increase testing capacities of laboratories. More patients delivered by LSCS (50.54%). Admission to ICU relatively increased in mothers (15.38%). Increased incidence of iatrogenic preterm births and caesarean sections was seen due to maternal or foetal compromise. All neonates were tested negative for COVID-19, incidence of IUD (17.64%) also appears to be increased.

Conclusion: There is relatively higher rate of LSCS. Overall preterm delivery and IUD was increased. Maternal ICU admission and death due to COVID-19 complication was also increased.

Keywords: COVID-19 pandemic, pregnancy, feto-maternal outcomes, mortality and morbidity, neonates.

OP. 82

STUDY OF HIGH RISK SCORING IN PREGNANCY, MATERNAL AND FOETAL OUTCOME

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Background: A high-risk pregnancy (HRP) is a pregnancy complicated by a disease or disorder that may endanger the life or affect the health of the mother, the foetus or the newborn. These high-risk women form a special vulnerable cohort that can be identified in the antenatal period using a simple, easy to use, cost-effective tool- a maternal risk scoring system.

Aim: To study the high risk scoring in pregnancy, maternal & foetal outcome.

Methodology: This study was carried out on 400 pregnant women with gestational age more than 37 weeks. Detailed history, examination and necessary investigations were done and then using the Dutta and Das scoring system, each pregnant woman was assigned a risk score and stratified into 3 risk groups- low risk (0-3), moderate risk (4-5) and high risk (?6) and followed up till delivery and 7 days postpartum. Subsequently, the maternal and foetal outcomes were compared with their respective scores.

Results: It was found that there was a significant association between poor maternal and foetal outcome and high risk pregnancies predicted by this scoring schedule. 14.5% cases belonged to high risk group. In the high risk group, a significant difference was seen in the occurrence of PPH and the need for operative delivery.

Conclusions: There was a significant correlation between high risk and poor maternal and foetal outcome. So a simple scoring system, such as the one used in our study, can be adopted at primary and rural health centre's as a screening tool to predict pregnancies at high risk, thereby facilitating early referral of these women to tertiary care centres.

OP. 83

SURGICAL OUTCOME OF MASTOID CAVITY OBLITERATION WITH MUSCLE FLAP, BONE DUST, AND HYDROXYAPATITE IN CANAL WALL DOWN MASTOID SURGERY

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Background: The advantages of CWD mastoidectomy include excellent exposure of the entire attic and middle ear and complete eradication of disease. There have been numerous reports detailing a variety of techniques of obliterating the mastoid cavity.

Aim: To study the surgical result of mastoid obliteration, efficacy of different methods of mastoid obliteration, the need for cavity care & to study cavity problems.

Methodology: Sixty patients who underwent canal wall down mastoid surgery were included in the study and were divided into three groups: muscle flap (n=20), bone dust (n=20) and hydroxyapatite (n=20). The surgical technique and follow up were recorded at 1 month and 3 months in postoperative period.

Results: Cases obliterated with bone dust and muscle flap had better and early epithelialisation as compared to hydroxyapatite. Outcome and quality of life was better and almost equal in muscle flap and bone dust material group as compared to hydroxyapatite group.

Conclusion: CWD mastoidectomy and combined muscle flap, bone dust and hydroxyapatite for mastoid cavity obliteration is a technique that facilitates exposure of the middle ear cleft and ensures complete removal of cholesteatoma. In our experience, this procedure is an effective method to manage patients with pre-existing mastoid cavities and also those not previously operated upon.

OP. 84

ASSOCIATION BETWEEN SERUM VITAMIN D AND DRY EYE

Dr Sandhya Nagda

Aim: To investigate the association between low serum 25-Hydroxyvitamin D and Dry eye disease.

Methodology: A case series of 20 patients with dry eye symptoms and signs having low tear film breakup time and Schirmer's test values is evaluated for their serum vitamin D levels.

Results: The results obtained were robust and suggested that vitamin D deficiency is associated with worse subjective symptoms and less tear production in patients with dry eye. Vitamin D deficiency may be a risk for dry eye syndrome. In my study about 80% of the dry eye patients had serum Vitamin D levels less than 20 ng/dl.

Conclusion: Dry eye syndrome is one of the most common ocular diseases and has been recognized as an important public health problem. Oxidative stress induced inflammation may be involved in the functional decline of tear production. Vitamin D is a multi-functional hormone which can reduce inflammatory mediators and shows anti oxidative functions. The present study supports a strong association between serum 25-hydroxyvitamin D levels and dry eye disease.

OP. 85

PREVALENCE AND CHARACTERISTICS OF OCULAR MANIFESTATIONS MUSHROOMING UNDER THE GAZEBO OF ACUTE LYMPHOBLASTIC LEUKEMIA

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Background: Myriad of ocular manifestations in acute lymphoblastic leukemia (ALL) are due to leukemic infiltration or as a result of anemia, thrombocytopenia and leukocytosis.

Aim: To identify the prevalence and characteristics of ocular manifestations in patients of ALL so that appropriate measures can be taken to curb the morbidities.

Methodology: 25 patients of ALL presenting in Ophthalmology Department were evaluated. Detailed slit lamp anterior segment examination and posterior segment evaluation using indirect ophthalmoscopy was done.

Results: Each patient of ALL that we examined presented with different ocular manifestations. Presentations varied from retinal haemorrhages, sub-hyaloid haemorrhage, papilloedema, vitritis, hyphaema, optic atrophy and proptosis. In few patients ophthalmic signs preceded the systemic manifestations and thus led to the diagnosis of ALL after CBC with PBF and bone marrow aspiration. Prompt chemotherapy as per protocol with supportive treatment was started.

Conclusion: Early recognition of leukemic retinopathy and any questionable ocular finding must be followed up with a detailed systemic evaluation which would help in darting the targeted disease.

OP. 86

PREVALENCE OF OCULAR MANIFESTATIONS IN TYPE-2DIABETES MELLITUS (T2DM)

Dr Pratiksha Mali

Background: The prevalence of T2DM in India has increased from 5.5% in 1990 to 7.7% in 2016. While there is extensive data available on diabetic retinopathy (DR), there is scarce data on prevalence of ocular manifestations other than DR in T2DM.

Methodology: A total of 91 patients diagnosed with type-2 diabetes of age >40 years were included in the study. Patients with hypertension were excluded. Anterior segment examination was done by slit lamp and fundus was examined by direct and indirect ophthalmoscopy.

Results: Cataract (51%) was found to be most common followed by DR (32.9%) and dry eye (21.9%). Others were pterygium (7.6%), superficial punctate keratitis (6.5%), MGD (5.4%), chalazion (3.2%), blepharitis (2.1%) and sty (2.1%). The most common type of cataract was cortical (21.9%) followed by posterior subcapsular cataract (19.7%) and nuclear (9.8%).

Conclusion: In patients of T2DM, we should also look for findings other than DR which can lead to ocular morbidity and blindness.

OP. 87

OCULAR MANIFESTATIONS OF DENGUE FEVER

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Background: Dengue fever is one of the prevalent viral fever in tropical and subtropical regions. The incidence has increased in last few years and becoming a major epidemic health issue. Dengue can result in a wide spectrum of ocular manifestations which ranges from tiny subconjunctival haemorrhages to vision threatening complications such as macular oedema, retinal haemorrhages, branch retinal vein occlusion, vitreous haemorrhage, and exudative retinal detachment. Hence it becomes crucial to screen patients for dengue related ocular complications

Aim: To assess the ocular manifestations of dengue fever.

Methodology: A cross sectional study was conducted in 50 patients (28males & 22 females) with ages ranging between 8-70yrs, diagnosed with dengue fever. A detailed systemic history followed by ocular examination including best corrected visual acuity, slit lamp biomicroscopy and dilated fundus examination was done. Fundus photography was carried out as & when required.

Results: The mean interval time for occurrence of ocular features was 7 days after onset of dengue fever. Myriad of ocular findings were found including retro- ocular pain, sub-conjunctival haemorrhage, blurring of vision and fundus changes varying from tortuosity of retinal vessels, haemorrhagic retinopathy & macular oedema. Ocular signs & symptoms correspond to nadir of thrombocytopenia.

Conclusion: Dengue fever associated with ocular manifestations can result in a wide spectrum of ocular morbidity it affects typically young adults. Hence it becomes essential to create awareness among the physicians & ophthalmologist which will help in minimizing complications due to dengue fever.

OP. 88

DOSIMETRIC STUDY OF DOSE TO MASSETER MUSCLE IN HEAD AND NECK CANCER RADIOTHERAPY: VMAT VS IMRT

Dr Amit Gera

Background: Radiation therapy plays a significant role in treatment of head and neck cancers. Dose to the masseter muscle is directly correlated with the development of trismus. Reduction in dose to the masseter muscle could prevent this late toxicity of trismus. Literature suggests that treating head and neck cancer patients using IMRT technique decreases the probability of developing trismus.

Methodology: 20 patients diagnosed as locally advanced primary squamous cell carcinoma of head and neck, planned for radical radiation therapy were included. Two plans were generated for each patient. One VMAT plan was generated with two complete arcs. One seven field step and shoot IMRT plan was generated with beam angles at 0°, 51°, 102°, 153°, 204°, 255°, 306°. All plans were generated using 6 MV photons and 3mm grid size. Optimization and calculations were done in Monaco treatment planning system. Masseter muscle was contoured using a novel atlas for muscle of mastication (Hague et al). Dosimetric analysis and comparison was performed between the two treatment modalities for dose to masseter muscle. Statistical analysis was done using mean and t-test.

Results: The difference between the mean dose to masseter muscle received using VMAT is 10.08% ($p = 0.3623$) lower as compare to IMRT for left side and 5.78% ($p = 0.5220$) on right side.

Conclusion: VMAT as a treatment technique has potential to reduce the dose to masseter muscles and possibly reduce incidence of trismus in head and neck cancer as compared to IMRT. Further studies with large number of patients are required to compare VMAT and IMRT in reducing the dose to masseter muscle and trismus.

OP. 89

A CLINICO-PATHOLOGICAL STUDY OF BENIGN BREAST DISEASE- AT TERTIARY CARE CENTRE

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Background: Benign breast diseases are at least 10 times more common than breast cancer in developed countries. It deserves attention because of their high incidence, their impact on women's life and due to cancerous potential of some histological types.

Aim: To evaluate the overall spectrum in relation to age, sex and clinical presentation in an Tertiary care centre.

Primary objective: To evaluate and correlate the role of FNAC and histopathological report with clinical examination for differentiating benign and malignant lesion.
Secondary objective: To evaluate and correlate the clinico-radiological presentation of the benign breast diseases.

Methodology: A prospective observational study was conducted at a tertiary care centre where total of 64 patients were taken. Detailed clinical history and examination was done and then compared to histopathological, FNAC, and radiological results.

Results: Out of the 61 female patients fibroadenoma was found most common followed by fibrocystic disease and breast abscess. Most common age group was found to be 2nd decade of females having firm, painless swelling as their chief complaints. Accuracy of HPE, radiological and FNAC results were compared with clinical diagnosis.

Conclusion: Benign breast diseases are common among young females. Triple assessment is a gold standard approach to breast disease management.

OP. 90

**OCULAR MANIFESTATIONS IN COVID -19
ASSOCIATED MUCORMYCOSIS AT A TERTIARY CENTRE IN HARYANA**

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Background: Rhino-orbito-cerebral Mucormycosis (ROCM) is an angioinvasive, opportunistic infection with a high mortality. A recent surge in the number of cases has been observed.

Aim: To observe the incidence of ocular manifestations, ocular morbidity and mortality in cases of COVID -19 associated ROCM.

Methodology: The medical records of a total 189 patients admitted with Rhino-orbito-cerebral Mucormycosis from May to September 2021 were studied retrospectively.

Results and Discussion: Males (73%) outnumbered females (27%). 41% patients had ocular symptoms whereas 62% had ocular signs. PL was absent in 17.46% patients. On CEMRI, 56% patients showed orbital involvement. Orbital exenteration was done in 6%. Mortality was 31.22%. The study results were compared with the Collaborative OPAI-IJO Study on Mucormycosis in COVID-19 (COSMIC). COSMIC showed male preponderance of the disease (71%) as did the present study. Orbital involvement (72%) was higher in COSMIC as compared to our study (56%). Patients who had undergone orbital exenteration were 15 % as compared to 6 % at this study centre. The COSMIC has reported 14 % mortality whereas our study reports 31.22%. The mortality reported in literature from pre-COVID era for ROCM is around 50% despite the best of treatment.

Conclusion: ROCM can present with myriad symptoms and signs amongst which ocular manifestations were observed in 41% of the study patients. All clinicians should develop an instinct for early diagnosis. The team taking care of ROCM patients should stick to a management protocol for the long follow up required.

OP. 91

COMPARATIVE STUDY TO ASSESS THE FUNCTIONAL OUTCOME OF OPERATIVE V/S CONSERVATIVE MANAGEMENT OF DISPLACED CLAVICLE FRACTURES

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Aims: To assess the advantage, if any, of surgical treatment of displaced fracture clavicle by open reduction and internal fixation with plating, over treating similar fractures conservatively.

Methodology: Patients presenting with displaced clavicle fractures were included and randomly allocated to two groups: Conservative and Operative. Conservative group: Treated with figure of eight clavicle brace and arm sling pouch. Operative group: Treated with plating. Functional outcomes assessed by Constant-Murley score at 3 and 6 month follow up; and fracture union was assessed by serial radiographs taken at 6th week, 3rd month and 6th month.

Results: The study included 30 patients with 15 patients in each group. Functional outcome measured at the end of 3 months (76 and 66.4) and 6 months (89.47 and 80.13) of follow up using Constant-Murley score was significantly higher in operative group than conservative group respectively.

Conclusion: In our study, it was found that at the end of 3 and 6 month of follow up, patients treated surgically with plating had better functional outcome than conservatively treated patients as measured by Constant-Murley score. The duration of union and the incidence of complications was less in the operative group as compared to the conservative group. Hence, we recommend operative management of displaced clavicle fractures over conservative management.

OP. 92

CLINICOPATHOLOGICAL PROFILE OF BENIGN LESIONS OF LARYNX

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Aim: To compare endoscopic findings with histopathological study and prevalence in different age, sex, various risk factors, occupation, site of involvement causing benign lesions of larynx.

Methodology: It is a Observational, prospective based study. The chart of 52 patients presenting to GMCH, ENT OPD with complaint of hoarseness of voice, throat pain, foreign body sensation, vocal fatigue were evaluated on the basis of history taking, clinical examination and endoscopy.

Results: Among 52 patients, male preponderance was observed. Majority of the patients were in the age group of 31–40 years. Vocal cord nodules were observed to be the commonest type of lesions. In our study, hoarseness of voice, cough, foreign body sensation and throat pain were found to be the commonest symptoms.



**ABSTRACT
AWARD
POSTER**



APP. 01

AN OBSERVATIONAL STUDY TO COMPARE THE SERUM IRON LEVEL AMONG HYPOTHYROID PATIENTS AND HEALTHY CONTROLS

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Background: Hypothyroidism is a clinical entity resulting from deficiency of thyroid hormones or from their impaired activity. Thyroid peroxidase enzyme is the key enzyme which catalyzes almost the entire thyroid metabolic pathway. Iron is an essential cofactor needed for the enzyme thyroid peroxidase to function effectively. In status of Iron deficiency TPO cannot perform its function of synthesizing Thyroid hormones.

Aim: To compare the serum Iron level among hypothyroid patients and healthy Individuals

Methodology: An observational study was conducted in the department of Biochemistry and Endocrinology at SMS Medical College, Jaipur. Serum Iron was measured in 25 hypothyroid patients and 25 healthy controls.

Results: Mean age is 3912.54 years in hypothyroid patients and 3714.65 years in healthy control'. The mean serum Iron 42.287.12microgm/dl in hypothyroid patients and 74.3212.81 microgm/dl mean serum Iron in healthy controls was statistically significant ($p < 0.05$). Thus we can say that iron deficiency is associated with low levels of thyroid hormones.

Conclusion: Our study concluded that decreased serum Iron level is associated with Hypothyroidism. Hence their management can prove to be beneficial for prevention of Hypothyroidism.

APP. 02

SERUM PSA LEVEL IN TYPE 2 DIABETIC MEN

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Aim: To assess and compare the serum prostate-specific antigen (PSA) levels in men with type 2 diabetic subjects and non-diabetics control and to determine the effect of type2 diabetes mellitus (DM) on the serum level of prostatic specific antigen (PSA) in Hadoti region of Rajasthan (India).

Methodology: The study include 50 diabetic men aged 35-81 (55 ± 12)years and 50 non-diabetic men aged 45-79 (57 ± 10)years. Blood was collected and serum was analyzed for various biochemical parameters, fasting blood sugar, lipid profile, renal function tests, Prostate specific antigen and Glycated hemoglobin HbA1c.

Results: There is correlation between PSA and age in the group of men free from diabetes ($r=0.741$; $p<0.0001$), however it was lower in diabetic subjects ($r=0.140$; $p=0.332$). A lower PSA concentration is observed in with type2 diabetic men (diabetic mean PSA: 1.04 ng/dl, non-diabetic mean PSA: 3.4ng/dl, $p<0.0001$). A strong negative correlation found between serum HbA1c levels and serum PSA ($p<0.0001$ and $r= -0.0493$) concentrations in men with diabetic.

Conclusion: Our results suggest that values of serum PSA are less age dependent in type2 diabetic patient than in non-diabetics and there is significant impact of type2 diabetes mellitus on serum PSA.

APP. 03

AN OBSERVATIONAL STUDY TO COMPARE SERUM TOTAL ANTIOXIDANT ACTIVITY IN PREGNANT WOMEN WITH PREECLAMPSIA CHRONIC HYPERTENSION AND HEALTHY CONTROLS

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Background: Preeclampsia and chronic hypertension in pregnant women represent a group of disorders associated with increased maternal and fetal mortality and morbidity. In hypertensive pregnancy increased free radical activity and oxidative stress leads to depletion of antioxidant reserves.

Aim: To estimate serum total antioxidant activity (AOA) in pregnant women with preeclampsia, chronic hypertension and healthy controls.

Methodology: A cross sectional study was conducted in department of Biochemistry and Obstetrics and Gynaecology. 35 pregnant women with preeclampsia, 35 with chronic hypertension and 35 healthy controls were included in study.

Results: Mean age in our study is preeclampsia group - 267years, chronic hypertension group - 305 years and in controls- 268 years. Mean serum total antioxidant activity in Group I (Preeclampsia) AOA-0.980.164mmol/L, in GroupII (chronic hypertension) AOA-1.1320.328 mmol/L, and in controls AOA-1.30 mmol/L. Decreased total antioxidant activity was statistically significant ($p < 0.05$) in all groups.

Conclusion: Significant decrease in serum total antioxidant activity in pregnant women with preeclampsia and chronic hypertension shows that AOA can be considered as an early indicator of severity of preeclampsia and chronic hypertension.

APP. 04

SURAKSHA CHAKRA: A NEW SCORING SYSTEM TO PROTECT THE HEALTHCARE WORKERS FROM COVID

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Background: As of May 2020, a total of 152,888 infections and 1413 deaths were reported amongst the healthcare workers worldwide. After around 2 years of this pandemic, what we have understood is only personal protective equipment (PPE) and social distancing are two modifiable risk factors that if addressed in a proper way, would significantly reduce the chain of transmission in hospital setting.

Aim: A new simple scoring system has been developed by our Suraksha Chakra team to protect frontline workers

Methodology: BSF-PHD Scoring system - A scoring system designed by AIIMS Jodhpur Suraksha-Chakra team to look into the safe practices during COVID.

BSF-PHD Suraksha Chakra Score card		
Letter	Clinical Characteristic	Points
B – Biomedical waste	No BMW segregation/ PPE Disposal	0
	Inadequate or Partial BMW segregation/ PPE Disposal	1
	Appropriate BMW segregation/ PPE Disposal	2
S – Social Distancing	No Social Distancing	0
	Social Distancing not on all areas	1
	Social Distancing at all areas	2

F – Flu Reporting	Flu like symptoms and not reported	0
	Flu symptoms and reported	1
	No Flu like symptoms in any HCW	2
P-Personal Protective Equipment (PPE)	No PPE	0
	Inadequate PPE	1
	Adequate PPE	2
H – Hand hygiene	No hand washing	0
	Inadequate hand washing	1
	Adequate hand washing	2
D – Disinfection control	No cleaning	0
	Cleaning once daily with appropriate disinfectant	1
	Cleaning twice daily with appropriate disinfectant	2
Maximum Score		12
Score – 0 to 5 (stricter infection control policies required)	Score – 6 to 9 (Scope for further improvement)	Score – 10 and above (Benchmark)

Results and Conclusion: The benefits of using BSF-PHD score by healthcare facilities are many. Implementation of this innovative Suraksha Chakra scoring card developed by AIIMS Jodhpur is one of the measures that can be used by other healthcare facilities to protect the scarce manpower resource.

APP. 05

A COMPARATIVE ANALYTIC STUDY TO DISCERNMENT OF SARS-CoV-2 BY FOUR DIFFERENT MULTIPLE MOLECULAR In-VITRO DIAGNOSTIC ASSAY

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Background: The clinical presentation of Covid-19 is fairly nonspecific, symptoms overlap those of other seasonal respiratory infections, concurrently circulating in the population. Timely and accurate laboratory diagnosis of SARS-CoV-2 can significantly impact patient management, which is critically important to infection control measures aimed to curb the pandemic within communities & hospitals.

Aims: To evaluate the clinical performance of different molecular assay for the detection of Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Assessment of the analytical performance & comparison of different kits by using same extraction methodology and viral genomic material

Methodology: We evaluated the analytical sensitivity & clinical performance of the four SARS-CoV-2 molecular diagnostic assay in Nasopharyngeal Specimen under this study, to compare the validation as well as analytic performance of four different molecular assay: TruPCR® SARS-CoV-2 RTqpcr, COVIDSURE Multiplex Real time RT-PCR, VIRALDTECT-II Multiplex Real time PCR, COVISURE Genetix COVID19 Real time PCR.

Results & Conclusion: This study indicates a comparable analytical performance of the four different assays for the detection of SARS-CoV-2 through Real time RT-PCR. A sensitivity and specificity of 100% showed by VIRALDTECT-II panel while 96.29% sensitivity & 96.87% specificity was observed by Trupcr. 92.59 & 100% of sensitivity & specificity showed by Covisure, 96.29% of sensitivity & 96.96% specificity showed by Covisure molecular diagnostic assay.

APP. 06

RESISTANCE PATTERN AMONG KLEBSIELLA SPP. ISOLATED FROM VARIOUS CLINICAL SPECIMENS IN A TERTIARY CARE HOSPITAL

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Background: Multi-drug resistance among Klebsiella spp. is a growing problem regarding to treating infections.

Aim: The aim of this study was to determine and evaluate the antimicrobial resistance among Klebsiella spp. isolated from various clinical specimens.

Methodology: Three hundred three Klebsiella spp. were included in this study. The isolates were identified using standard conventional biochemical methods. Antibiotic susceptibility testing was performed on Mueller Hinton agar by Kirby-Bauer disc diffusion method and interpreted as per CLSI guidelines.

Results: Total 303 isolates were isolated from various clinical specimens - urine 25.08%, blood 12.2%, endotracheal aspirate 11.8%, wound 0.99%, sputum 5.2%, bronchoalveolar lavage fluid 2.7%, and pleural fluid 0.99%. Out of these isolates 67.98% were from males and 32.01% from females. Highest resistance was observed against ampicillin (87.78%) while the low resistance of 1.6% to 4.0% was observed against polymyxin B, tigecycline and imipenem. Multi-drug resistance (MDR) was found 246 (81.18%) isolates. Highest MDR isolates were obtained from urine specimens (68.4%).

Conclusion: Polymyxin B, tigecycline and imipenem were the most effective antibiotics against multi-drug resistant Klebsiella species.

APP. 07

TAKAYASU ARTERITIS

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Background: Takayasu Arteritis (TA) also known as “Pulseless disease” is an idiopathic, chronic, large vessel arteritis involving the aorta and its primary branches. The incidence of TA in children is unknown included 30% paediatric patients. Incidence in all ages of is 2.6/1,000,000. The disease commonly presents between the ages of 10 and 20 years, female and male ratio of 1.3: 1 in India.

Case report : A 14 year old female child admitted in PICU of GMCH with chief complain of involuntary movements, headache, vomiting, fever since 1 day. Routine blood test was normal. Subsequently MRI brain contrast was done suggestive of D/D encephalitis. Patient’s blood pressure was persistently raised above 140/100mmHg. Color-doppler was suggestive of right renal artery narrow caliber. Right renal artery shows parvus et tardus type spectral pattern. USG abdomen was also done which suggests smaller right kidney. CT angiography suggested Takayasu arteritis. ESR value was raised. Patient managed conservatively for raised Blood pressure and raised ESR. Patient discharged on oral steroids (prednisolone) and conservative management and asked for regular follow up.

Discussion : The most frequent presentation in childhood is hypertension, followed by headaches, fever, dyspnoea, and weight loss, vomiting and stroke. Non-specific symptoms such as abdominal pain and vomiting can herald TA in children. Early diagnosis can prevent the disease progress.

APP. 08

NURSES' MENTAL HEALTH AND WORK PLACE SAFETY DURING COVID 19 PANDEMIC IN TERTIARY CARE HOSPITALS OF NORTH INDIA

Dr Jitendra Hirani

Background: The unforeseen challenges posed by the COVID-19 pandemic have taken a significant toll on health professionals. Despite the risk, frontline workers such as nurses are working tirelessly in limited resources, which can cause physical & mental exhaustion and compassion fatigue.

Methodology: An online cross-sectional survey with 580 nurses was conducted in two tertiary care hospitals to assess the prevalence of anxiety, depression, poor sleep quality and injury among participants. Assessment of generalized anxiety disorder (GAD) was done using GAD-7 scale; sleep quality was estimated by using Pittsburgh sleep quality index (PSQI); depression was assessed by using Patient health Questionnaire (PHQ-9). Quantitative variables were expressed as mean \pm standard deviation (SD), whereas qualitative variables were expressed as proportions (%). Chi-square test (χ^2) and Multivariate logistic regression analysis were done to explore potential influence factors for GAD, sleep quality, and depressive symptoms.

Results: Prevalence of GAD, poor sleep quality, depression and injury was 17%, 10%, 10.3% and 7.8% respectively. The significant predictors of GAD were: age > 35 years (a OR: 3.5), females (a OR:1.9), COVID duty (a OR:2.1) and injury episode (a OR: 5.1). Poor sleep quality was significantly associated with female gender (a OR:4.3), higher rank (a OR: 4.7) and injury episode (a OR:5.2). Being a higher rank professional (a OR:2.7), working with COVID patients (a OR: 2.01) and with history of an injury (a OR: 3.5) in past month were identified as significant predictors of depression.

Conclusion: There is a need to draft occupational health strategies to mitigate the risk of psychological injury to frontline workers.

APP. 09

INDIAN DIABETES RISK SCORE: SCREENING OF TYPE 2 DIABETES MELLITUS AMONG ADULT POPULATION OF URBAN SLUM: A CROSS-SECTIONAL STUDY

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Background: Evidences suggest that premature detection of diabetes by suitable screening methods will help to intercept or delay the vascular complications and thus reduce the clinical, social and economic burden of the disease.

Aim: To identify adults at high risk for developing type-2 diabetes using the IDRS

Methodology: A cross sectional study was conducted on 450 participants in urban slum of Jhalawar. A predesigned, pretested proforma and IDRS sheet was used to collect data from the study participants, by one to one interview. Fasting blood glucose (FBG) was measured with a calibrated glucometer and patient was labeled as diabetes if FBG value was ≥ 126 mg%.

Result: According to IDRS score, low, moderate and high risk was found in 57 (12.7%), 266 (59.1%) and 127 (28.2%) participant respectively. Prevalence of diabetes was found 14.4% (65) in selected sample. Out of 65 diabetics, 60 (62.3%) are found at high risk, 05 (7.7%) at moderate risk of developing diabetes according to IDRS score and while in low risk category no one found diabetic. IDRS score of ≥ 60 turned out to be the best cut point for identifying undiagnosed diabetes with sensitivity 92.3% and specificity 82.6%.

Conclusion: Prevalence of diabetes was found higher (14.4%) than national prevalence (8.7%). Association of IDRS was found significant with diabetes. IDRS score at 60 and above is found valid screening tool for early detection of Diabetes.

APP. 10

RELATIONSHIP BETWEEN DEPRESSION, QUALITY OF LIFE AND ABUSE IN WIVES OF PATIENTS WITH ALCOHOL AND OPIOID DEPENDENCE SYNDROME

Dr Kaushal Jadeja

Background: Alcohol and opium dependence has adverse health and social consequences; related problems occur within the family context, maximum impact is felt on spouses, mainly intimate nature relationship. Mental health of family members of individuals with alcohol and opium dependence affects their ability coping up stress, emotional well-being.

Aim: To assess, compare, and study the relationship between depression, Quality of life (QOL), and abuse in wives of patients with (Alcohol Dependence Syndrome) ADS and (Opioid Dependence Syndrome) ODS with severity of alcohol and opium dependence respectively.

Methodology: This cross-sectional, comparative study was conducted in 50 Wives of patients of ADS and ODS each. The wives were assessed using Depression, Anxiety, Stress Scales (DASS); Short Form -36 (SF-36), Women Abuse Screening Tool (WAST). Severity of Alcohol Dependence Questionnaire (SADQ) and Severity of Opioid dependence Questionnaire (SODQ) were used for severity scoring of patients.

Results: Physical functioning (78.9) is most affected in wives of ADS and General health (91.4) is most affected in wives of ODS. Found Significant difference in role of limitation due to physical health (0.007), due to emotional health (0.011), physical functioning (0.008), general health and social functioning (0), energy (0.038). 34% have mild depression, 30% have mild anxiety. Strong correlation between SADQ and SODQ with depression (0.90), (0.85); anxiety (0.81), (0.71) and stress (0.46), (0.73). For SADQ (60%) and for SODQ (56%) of wives of patients with ADS and ODS faced abuse.

Conclusion: Increased depression, anxiety and stress levels in wives of ADS and ODS impacting their QOL and also face abuse.

APP. 11

A RARE CASE REPORT OF MAYER-ROKITANSKY-KUSTER-HAUSER SYNDROME MANAGED WITH McINDOE VAGINOPLASTY

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Background: The Mayer-Rokitansky-Kuster-Hauser (MRKH) syndrome is a rare congenital disorder (1:4500 live births) characterized by uterovaginal agenesis. Most patients present in 2nd decade of life as it hampers the menstruation and coital activities. Secondary sexual characteristics and karyotype are normal in such cases. Creation of neovagina to make sexual intercourse possible is the main therapeutic strategy.

Case report : A 23year married female presented to outpatient department with history of primary amenorrhoea and coital difficulties. MRI revealed a blind vaginal pouch with infantile uterus and well-developed ovaries showing dominant follicles. Surgical intervention included creation of a neovaginal canal of 8*4 cm dimensions from a potential space between urethra and rectum. A fresh amnion mounted mould was placed within the canal. Mould was removed after 9 days. She was counselled and taught to regularly dilate the canal with mould to prevent narrowing of the neovagina. She was advised to refrain from any coital activities for at least a month. Thereafter, she was again assessed for any post operative complications. Patient was satisfied with the outcome of the procedure.

Conclusion: Amnion graft vaginoplasty is a simple, safe and effective procedure requiring less expertise. It has good success rate with minimal post operative pain, infections and scarring, and thus, a rewarding procedure, especially in low resourced health care areas.

APP. 12

AXENFELD RIEGERS SYNDROME

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Background: Axenfeld-Rieger syndrome is an ocular anterior segment dysgenesis, autosomal dominantly inherited, commonly associated with glaucoma and systemic anomalies. This study presents various clinical manifestations of Axenfeld-Rieger syndrome within one family.

Case Report: Three members of the family: patient 1- father (54 years old), patient 2- son (12 years old), and patient 3- daughter (8 years old), underwent complete ophthalmic examination, including standard glaucoma diagnostics. It was impossible to perform complete eye examination in one case (patient 1) because of severity of ocular changes. All family members described had iris abnormalities (hypoplastic iris stroma) and advanced glaucoma, however severity of symptoms were different in each case. The most advanced disease was recognized in patient 1. Other findings included: posterior embryotoxon (patients 2 and 3), iridocorneal angle abnormalities (patients 2 and 3), stretch holes and extraocular features (patient 2): dental anomalies (microdontia and hypodontia), maxillary hypoplasia and periumbilical skin fold. All of these symptoms supported the diagnosis of Axenfeld-Rieger syndrome. In addition, we also diagnosed high myopia & strabismus (patient 2) and corneal scar in patient 1.

Conclusion: Reported cases of Axenfeld-Rieger syndrome demonstrate phenotypic variability of the disease among family members, which is characteristic for this disorder and can cause diagnostic problems.



**ABSTRACT
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PP. 01

**AN OBSERVATIONAL STUDY TO COMPARE SERUM MAGNESIUM IN PATIENTS
OF POLYCYSTIC OVARIAN SYNDROME AND HEALTHY CONTROLS**

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Background: Polycystic ovarian syndrome is the most common endocrinopathy in the women of reproductive age with a prevalence of approximately 7-10 % worldwide. It is diagnosed according to the new Rotterdam criteria (anovulation, androgen excess and polycystic ovarian morphology in ultrasound assessment).

Aim: To analyze and correlate serum magnesium in women with Polycystic Ovarian Syndrome and controls.

Methodology: After Ethical Committee approval, serum magnesium was measured by Xylidyl method in 70 PCOS cases and results were compared with 70 age and sex matched controls.

Results & Conclusion: A significant decrease in serum magnesium level was observed in cases as compared to controls ($p < 0.05$). Serum magnesium levels were significantly decreased in PCOS patients suggesting increased urinary excretion of magnesium in the presence of elevated insulin. Administration of magnesium acts as a beneficial effect on dyslipidaemia of PCOS patients through the activation of LCAT and suppression of adrenergic activity. So, magnesium acts as a prognostic biomarker in PCOS patients.

**A COMPARATIVE STUDY OF SERUM ELECTROLYTES, CALCIUM, MAGNESIUM IN
PRE-ECLAMPSIA PREGNANCY AND HEALTHY CONTROLS AT SMS MEDICAL
COLLEGE & ATTACHED HOSPITALS**

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Background: Preeclampsia a pregnancy specific syndrome is one of the most common causes of maternal & fetal morbidity & mortality. Its exact etiology is not known, but it may be associated with alteration in electrolyte status. The electrolytes like calcium, magnesium, sodium and potassium contribute significantly in the normal functioning of the vascular smooth muscles in pregnancy.

Aim: To evaluate role of serum calcium, magnesium, sodium and potassium in Pre-eclampsia and to compare them with those in normal pregnancy

Methodology: Study design: Cross Sectional Study, Study type: A comparative analysis study. The study was conducted in the department of Biochemistry & Obs and gynae department, SMS Medical College, Jaipur. All pregnant women admitted at Zanana hospital were screened for inclusion criteria. All those meeting inclusion criteria, consent were taken from patients. Detailed history form will be filled. Collection of blood sample was done at 4 weeks. Special investigations done were calcium, magnesium, sodium & potassium.

Results: The results showed that serum calcium, magnesium, potassium were significantly decreased ($P < 0.01$) and serum sodium significantly increased ($P < 0.01$) in pre-eclamptics as compared to normal

Conclusion: The study shows reduced levels of serum calcium, magnesium, potassium and increased level of sodium in patients of preeclampsia as compared to the normal pregnant women. Hypocalcemia, hypomagnesemia, hypokalemia and hypernatremia seen in the preeclamptic women may be responsible for the vascular pathology associated with onset of preeclampsia.

COMPARISON OF TOTAL SERUM CALCIUM LEVELS IN THIRD TRIMESTER OF PREGNANT FEMALES OF RURAL AND URBAN AREAS

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Background: Requirement of calcium is increased during pregnancy which leads to increased chances of hypocalcemia. This may lead to pregnancy related complications such as pre eclampsia, pre term delivery, low birth weight and neonatal mortality.

Aim: To compare total serum calcium levels between pregnant females of third trimester from rural and urban areas

Methodology: This study will be conducted at the associated hospitals of Govt. Medical College, Kota. 100 pregnant females who are in their 3rd trimester of pregnancy will be included in this study. Out of them 50 will be of rural area and 50 from urban area. Their total serum calcium levels will be analysed on autoanalyzer using reagent Arsenazo on Erba Mannheim (XLSYSPACKS).

Results & Conclusions: We will analyse the impact of consumption of dairy products and sun exposure on total serum calcium levels in third trimester pregnant females and pregnancy outcomes in rural and urban areas.

**A STUDY ON OSTEOPENIA OF PREMATURE IN PRETERM NEONATES
AT SMS MEDICAL COLLEGE & ATTACHED HOSPITALS**

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Background: Preterm birth complications are the leading cause of death for children under 5, causing an estimated 1 million deaths in 2015 globally. Osteopenia of prematurity is a multifactorial disorder commonly observed in very low birth weight (VLBW, <1,500 g) newborns, with a greater incidence in those extremely low birth weight (ELBW, <1,000 g).

Aim: To study Ca, Po₄, ALP levels and risk factors for osteopenia of prematurity in premature neonates.

Methodology: Cross Sectional Descriptive type of study conducted in the department of Biochemistry & Paediatrics. All neonates admitted at JK Lon hospital were screened for inclusion criteria and those meeting criteria, consent were taken from parents. Detailed history forms were filled. Collection of blood samples was done at 4 weeks. Special investigations done were Calcium, Phosphorus & Alkaline Phosphatase.

Results: There was a significant decrease in serum calcium and serum phosphorous level where as serum ALP documented a significant increase in preterm neonates. 24 of 60 VLBW babies developed osteopenia of prematurity at 4th week of life.

Conclusion: Gestational age, birth weight, Caffeine and postnatal use of steroids and ALP are considered to be significant risk factors and are associated with osteopenia. Timely and adequate fortification of breast milk with human milk fortifier is essential. Early detection of this condition by monitoring of biochemical parameters in high-risk cases minimizes the development of osteopenia and prevents future complications of osteopenia.

**ASSOCIATION BETWEEN DIABETIC NEUROPATHY & OSTEOPOROSIS IN
PATIENTS WITH TYPE-2 DIABETES AT SMS MEDICAL COLLEGE AND
ATTACHED HOSPITALS, JAIPUR**

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Background: Diabetic complications and osteoporotic fractures are two of the most important causes of morbidity and mortality in older patients. Osteocalcin, one of the bone turn over markers, is a peptide secreted by bone cells and reflects bone formation and consequently indicates bone remodelling status; which is the measure mechanism underline osteoporosis.

Aim: To evaluate the association between osteoporosis and diabetic peripheral neuropathy in patients with type-2 diabetes mellitus.

Methodology: After taking due permissions study was conducted in department of biochemistry and endocrinology, SMS medical college in two groups each is having 30 cases with and without diabetic neuropathy. Dual Energy X-ray Absorptiometry (DEXA) and serum osteocalcin measurement were done for both the studied groups. Serum osteocalcin was assessed by CLIA.p

Result & Conclusion : The mean osteocalcin level is higher in neuropathy group showing significant difference between two groups. There is no significant difference between the two studied groups in the DEXA scan results. Osteoporosis is more prevalent in type-2 diabetes mellitus with micro vascular complications and serum osteocalcin level is better in its diagnosis than DEXA scan.

ARTIFICIAL INTELLIGENCE (AI) - ENABLED HEALTHCARE DELIVERY

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Artificial intelligence (AI) driven by machine learning (ML) algorithm is a branch in the field of computer science that is rapidly gaining popularity within the healthcare sector. AI aims to mimic human cognitive functions. It is bringing a paradigm shift to healthcare, powered by increasing availability of healthcare data and rapid progress of analytics techniques. AI is not one technology, but rather a collection of them. Popular AI techniques include ML methods for structured data, such as the classical support vector machine and neural network, and the modern deep learning, as well as natural language processing for unstructured data. A successful AI system must possess the ML component for handling structured data (images, EP data, genetic data) and NLP component for mining unstructured texts. Areas most influenced by AI in healthcare are healthcare administration, clinical decision support, patient monitoring and health care intervention. Despite the increasingly rich AI literature in healthcare, the research mainly concentrates around a few disease types: cancer, nervous system disease and cardiovascular disease. An AI system can assist physicians by providing up-to-date medical information from journals, textbooks and clinical practices to inform proper patient care. The greatest challenge to AI in these healthcare domains is not whether the technologies will be capable enough to be useful, but rather ensuring their adoption in daily clinical practice. The potential of AI to improve the health care delivery system is limitless but real-world clinical implementation has not yet become a reality.

COVID - 19 IN SOLID ORGAN TRANSPLANT RECIPIENTS

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The clinical practice of solid organ transplantation (SOT) has been significantly impacted during the pandemic, resulting in a substantial decrease in transplant activity and increase in mortality due to infection in transplant recipients. Mortality rates reported between 13 to 30 % in SOT recipients. Common medical co-morbidities reported in SOT transplant recipient including kidney, liver, heart and lung are diabetes mellitus, hypertension, chronic kidney disease and obesity. Clinical outcomes of SOT transplant recipients have been reported in various studies. Acute Kidney Injury (AKI) in 30% to 89% of hospitalized kidney transplant recipients. 28% of covid-19 heart transplants had reduced right ventricular function, ECG abnormalities, new thromboembolic events and increased pulmonary pressure, while evidence of myocardial injury in 77% of heart transplant patients. Respiratory support and ARDS reported in liver transplant recipients with covid-19. Predictors of adverse outcomes reported In lung transplant recipients with covid-19 are AKI, shock, liver failure and pancreatitis; in liver transplant are older age and raised D-dimer and serum ferritin and decreased absolute lymphocyte count; In heart transplant recipient, RV dysfunction, severe COVID -19 disease, raised LDH, raised troponine-I, raised NT-proBNP, elevated D-dimer and decreased absolute lymphocyte count; In lung transplant recipients hypotension, AKI, raised D-dimer, IL-6, ferritin, and CRP and decreased absolute lymphocyte count. COVID-19 has had broad reaching effects on transplant activity, both for donation and for transplantation, as well as transplant related research activities.

ASSOCIATION BETWEEN BODY FAT & DIABETIC NEUROPATHY IN ADULTS WITH TYPE-2 DIABETES MELLITUS

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Background: Previous epidemiologic studies showed that obesity increased the risk of diabetic peripheral neuropathy (DPN). However, there is very limited data about the impact of body fat measured by body composition analysis in DPN. Thus a comparative study between body fat and diabetic neuropathy in cases and healthy controls was done.

Aim: To assess serum level of fasting blood sugar, 2-h post prandial blood sugar, HbA1C, Total lipid profile & Insulin in patient without diabetic neuropathy.

Methodology: Subjects with type-2 diabetes mellitus between 35 to 55 years old were enrolled. Body composition was assessed by bio-impedence analysis of the association between body composition & DPN was investigated on 50 cases of diabetic neuropathy & 50 healthy controls.

Results: Subjects with type-2 diabetic neuropathy had higher body mass index and waist circumference than subjects without DPN. Frequent follow up and monitoring of these parameters will be of great help in its management.

Conclusion: Abdominal obesity was associated with DPN. Insulin resistance might mediate obesity & DPN in middle aged subject with T2DM.

Keywords: Diabetic neuropathy, obesity, visceral fat, insulin resistance.

EVALUATION OF LIPID PROFILE IN ACUTE MYOCARDIAL INFARCTION

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Background: Acute Myocardial Infarction (AMI), commonly called a heart attack. Dyslipidemia still a major risk factor for Coronary Heart Disease (CHD). It is well known that early treatment of hyperlipidemia after AMI offers potential benefits and reduces the morbidity and mortality of CHD.

Aims: To assess Lipid profile (serum Total Cholesterol, HDL, LDL, VLDL, Triglycerides) in AMI patients as compared to healthy subjects.

Methodology: 50 patients suffering from AMI, age above 18 years, and 50 age matched healthy control were enrolled for the study. Patients with chronic liver diseases, sepsis and Patients has a history of malignancy were excluded from the study. Above Lipid profile was evaluated and results were represented as mean \pm SD.

Results: Mean level of serum cholesterol among AMI patients was 204.12 \pm 33.47 and among control group was 161.3 \pm 16.51. Mean value of serum HDL among AMI patients was 42.35 \pm 15.21 and among control group 36.8 \pm 7.38. Mean levels of serum triglyceride in AMI patients was 167.4 \pm 80.38 and in control group 114.3 \pm 19.29 and mean level of serum LDL among AMI patients was 127.99 \pm 33.94 and among control group was 103.3 \pm 14.55 All lipid profile parameters - serum total Cholesterol HDL, LDL, TG were statistically significant.

Conclusion: The study indicates a relation between above Lipid profile in AMI. Therefore, they may require lipid-lowering therapy to avoid increased risk of Heart disease. Dyslipidemia is an important risk factor for AMI.

**A COMPARATIVE STUDY OF SERUM CALCIUM, PHOSPHORUS AND AMYLASE
LEVELS IN CHRONIC KIDNEY DISEASE PATIENTS
AT SMS MEDICAL COLLEGE AND ATTACHED HOSPITALS, JAIPUR**

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Background: Chronic Kidney Disease (CKD) is defined as the presence of kidney damage or GFR < 60 ml/min/1.73m² for atleast 3 months, with pathological abnormalities or damage, and progressive decline in renal function. It is associated with complex disturbances in calcium, phosphorous and amylase levels.

Aim: To study serum calcium, phosphorus and amylase levels in Chronic Kidney Disease patients and compare with healthy controls.

Methodology: The study was conducted in the department of Biochemistry. All patients admitted at SMS hospital were screened for inclusion criteria. All those meeting inclusion criteria, consent were taken from patients. Detailed history forms were filled and blood samples collected. Special Investigations done were calcium, phosphorus and amylase.

Results: The biochemical parameters namely serum calcium is decreased and serum phosphorus, serum amylase are increased significantly in chronic kidney disease patients compared to controls.

Conclusion: Based on the results of our study, abnormalities in Serum Calcium, Phosphorous and amylase metabolisms in the form of Hypocalcaemia, hyperphosphataemia, and increased levels of Serum amylase are observed in Chronic kidney disease.

Keywords: Chronic kidney disease, Hypocalcaemia, hyperphosphataemia, Serum amylase.

**STUDY OF ASSOCIATION OF SERUM URIC ACID AND SERUM MAGNESIUM
LEVELS IN NON-ALCOHOLIC FATTY LIVER DISEASE**

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Background: Non-Alcoholic fatty liver disease (NAFLD) is metabolic abnormality and different hepatic disorders. Hyperuricemia causes gout, impaired renal function, hypertension, hypertriglyceridemia and obesity, and Diabetes Mellitus. Magnesium is also a vital cation in neuromuscular function and bone formation, DNA transcription, protein synthesis and electrolyte balance. Hypomagnesemia is also associated with diabetes mellitus, hypertension and NAFLD.

Aim: To assess serum uric acid and magnesium level in NAFLD patients and healthy controls.

Methodology: A cross sectional study was conducted in department of biochemistry and gastroenterology. 30 NAFLD patients and 30 healthy controls were included.

Results: In our study there were 30 NAFLD patients as cases and 30 healthy in control group. Mean serum uric acid in case group were 7.9 ± 2.12 and that of control group it was 5.1 ± 1.79 . Mean serum magnesium in case group was 1.4 ± 0.77 and that of control group it was 2.5 ± 0.91 . The difference in uric acid and magnesium levels between cases and control were statistically significant.

Conclusion: Study concluded that increased serum uric acid and decrease serum magnesium concentrations are a risk factor in NAFLD. The possible pathogenic role of uric acid and magnesium in NAFLD and the metabolic syndrome deserves to be further studied.

**AN OBSERVATIONAL STUDY TO COMPARE SERUM MAGNESIUM IN PATIENTS
OF RHEUMATOID ARTHRITIS AND HEALTHY CONTROLS**

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Background: Rheumatoid arthritis (RA) is a chronic inflammatory disease of unknown etiology affecting various joints of the body leading to swelling, pain, stiffness and finally functional inability. Magnesium levels are changed in chronic inflammations and decreased level of magnesium has been suggested to be reasonable marker of rheumatoid arthritis.

Aim: To estimate the main difference of serum magnesium level in between RA cases and controls

Methodology: An observational study was conducted in department of Biochemistry & Rheumatology at SMS Medical College, Jaipur. Serum magnesium was measured in 30 patients with known history of rheumatoid arthritis and the results were compared with the 30 age and sex matched controls.

Results: Mean serum magnesium in RA patients was 1.680.42 mg/dl and in controls was 2.56 mg/dl, which were highly significant ($P < 0.001$). Thus we can say Serum Mg is significantly decreased in patients with RA as compared to the control group.

Conclusion: Significant decrease in serum magnesium was found in RA subjects compared to the controls. Hence, Serum Magnesium can be used as a screening parameter.

EVALUATION OF SERUM URIC ACID LEVELS IN PATIENTS OF LUNG CARCINOMA

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Background: Lung cancer remains leading cause of cancer related death globally. Among them 85-90% of the cases are of Non-small cell lung cancer. Uric Acid is the derivative of xanthine and hypoxanthine oxidation. It is a systemic antioxidant; its pro-inflammatory properties may play an important role in the pathogenesis of cancer.

Aims: To evaluate the levels of Serum Uric Acid among patients of lung carcinoma and control group.

Methodology: A total of 300 individuals consisting of 150 lung carcinoma patients & 150 healthy individuals fulfilling inclusion criteria of study were enrolled in study. Serum Uric Acid levels were evaluated and results obtained were presented as mean \pm SD and subjected to statistical evaluation. A p-value of ≤ 0.05 was statistically significant.

Results: Mean Serum Uric Acid levels among lung carcinoma patients were 5.70 ± 0.99 mg/dl and among control group it was 3.91 ± 0.80 mg/dl. Mean levels of Uric Acid among lung carcinoma patients were found to be raised as compared to the control group. Results were statistically significant among lung carcinoma patients with the P value < 0.0001 .

Conclusion: Study showed raised levels of Serum Uric levels among the enrolled lung carcinoma patients as compared to the control group. Elevated levels of Serum Uric Acid in tumor microenvironment may contribute to metastasis. Raised levels of Uric Acid may promote occurrence and development of cancer.

**STUDY OF LIPID PROFILE IN TYPE 2 DIABETES MELLITUS:
A COMPARATIVE CROSS-SECTIONAL STUDY**

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Background: Diabetic dyslipidemia is one of the major risk factor for cardiovascular events in type 2 diabetes mellitus (T2DM) and needs to be treated aggressively to prevent cardiovascular events.

Aim: To find the prevalence of lipid profile in T2DM as compared to healthy non-diabetic subjects.

Methodology: We included 100 type 2 diabetic subjects and 100 non-diabetic healthy subjects who attended OPD and admitted in medical wards of Dr. VMGMC, Solapur from October 2020 to October 2021. All these subjects were investigated for serum fasting and 2 hour postprandial sugar, total cholesterol (TC), triglycerides (TG), high density lipoproteins (HDL), low density lipoproteins (LDL) and very low density lipoproteins (VLDL).

Results: Prevalence observed in T2DM cases for increased TC, TG, LDL, VLDL and decreased HDL was 34%, 69%, 69%, 69%, 46% respectively and in non-diabetic healthy subjects it was 17%, 31%, 46%, 31%, 30% respectively. Results between two groups were compared by using student unpaired t test using respective mean and standard deviation and p value obtained for all parameters was <0.05 which indicates difference observed is significant.

Conclusion: Prevalence of dyslipidemia was significantly higher in type 2 diabetics than non-diabetic subjects as p value obtained for all parameters was <0.05 with increased TG, LDL and VLDL being most common type.

ESTIMATE THE LEVELS OF ADA IN SERUM AND LDH, SUGAR, PROTEIN LEVEL IN PLEURAL FLUID OF PULMONARY TUBERCULOSIS PATIENTS

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Background: Tuberculosis (TB) is an infectious bacterial disease which most commonly affects lungs. The ADA increase has been attributed to cell mediated response to Mycobacterium Antigens.

Aim: To estimate the level of Serum ADA, Pleural Fluid ADA, LDH, Sugar, and Protein to find its role for diagnosis of Pulmonary Tuberculosis (PTB).

Methodology: The study was performed on 76 individuals; they were divided into two groups. Group-I include 35 subjects as healthy control and Group-II include 41 PTB patients, which include 28 sputum negative (-ve AFB) patients and 13 sputum positive (+ve AFB) patients between the age group of 25-83 years. Serum ADA level, pleural Fluid ADA, LDH, Sugar, protein was evaluated in study group.

Results: ADA level in Serum and pleural fluid were significantly higher in AFB +ve patients; 35.62 ± 2.41 and 29.27 ± 3.20 as compared to AFB -ve patients; 57.40 ± 32.14 and 55.94 ± 18.60 . Further, the Mean + SD levels in Pleural Fluid LDH, Protein and Sugar were significantly higher in AFB +ve patients than tuberculosis -ve patients.

Conclusion: ADA in pulmonary tuberculosis revealed increase serum and pleural fluid level for all patients with pulmonary tuberculosis. Hence, ADA determination can be used as fast and discriminating test for early diagnosis of PTB and may probably reflects differences in cellular immune response to different infectious agent.

EVALUATION OF VITAMIN D LEVEL IN PATIENT WITH EPILEPTIC SEIZURE

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Background: An epileptic seizure is the clinical manifestation of an abnormal and excessive discharge of a set of neurons in the brain. Vitamin D is a pro-hormone and its effect is related to neuronal calcium regulation, immune modulation, antioxidant mechanism, increased activity of nerve conduction and detoxification mechanisms.

Aim: The present study was planned to assess Vitamin D levels in epileptic seizure patients and compared them with healthy individuals.

Methodology: 50 patients suffering from epileptic seizure, age above 18 years and 50 age matched healthy control were enrolled in the study. Patient suffering from malabsorption syndrome, pregnant women, lactating women were excluded from the study. Vitamin D level was evaluated and results were represented as mean \pm SD.

Results: Vitamin D level measured in epileptic seizure cases patients and healthy controls. Mean of Vitamin D of epileptic seizure cases was 20.49 \pm 9.48 ng/ml, and of healthy controls was 48.76 \pm 17.14 ng/ml. There is a statistically significant difference of Vitamin D levels in between epileptic seizure cases and healthy controls was observed (p-value 0.000)

Conclusion: Low level of Vitamin D was found in patients with epilepsy, so monitoring of Vitamin D should be considered as part of the routine management of patients with epilepsy.

Key words: Antioxidant, Malabsorption, Detoxification.

ASSOCIATION BETWEEN ESOPHAGEAL VARICES (EV) & SERUM ASCITES ALBUMIN GRADIENT (SAAG) IN PATIENTS WITH CHRONIC LIVER DISEASE

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Background: Portal hypertension is clinically significant in patients with cirrhosis. Evaluation of portal pressure performed through endoscopy which is invasive procedure and it involves catheterization of hepatic vein. Ascites and EV both are the major complications of portal hypertension and can be used as tools to judge the severity of liver disease.

Aim: To evaluate the association between esophageal varices and SAAG in patients with chronic liver disease (CLD)

Methodology: A total of 100 patients diagnosed for CLD with ascites were enrolled in the study. SAAG was measured for all patients. EV was assessed by endoscopy. Association of SAAG and EV was evaluated by applying appropriate statistical test.

Results: 87% patients had a SAAG value >1.1 . On applying 'Chi square test', a strong association of EV was observed with high SAAG value >1.1 ($\chi^2 = 46.43$; $P = <0.0001$). SAAG value of >1.1 was observed to have a sensitivity of 96.4% and a negative predictive value of 84.6% for EV.

Conclusion: SAAG >1.1 has a strong association with EV. The study concludes that SAAG >1.1 can be a predictor of EV among ascites patients.

Keywords: Portal hypertension, chronic liver disease, Cirrhosis, SAAG.

**ROLE OF INFLAMMATORY CARDIAC BIOMARKER IN CORONARY ARTERY
DISEASE AND ITS CLINICAL CORRELATION**

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Background: Cardiovascular disease is a leading cause of death worldwide and continues to increase in prevalence. Atherosclerosis is the main pathophysiological process underlying coronary artery disease (CAD). Myeloperoxidase (MPO) is a haeme containing peroxidase found in azurophilic granules of neutrophils and monocytes. There are several epidemiological studies have reported role of myeloperoxidase in the pathogenesis of atherosclerosis. MPO and MP derived oxidants have been shown to contribute to the development of vulnerable plaque.

Aim: To estimate the level of MPO, CKMB and other biochemical parameters.

Methodology: This study includes 300 subjects, of which 150 patients of CAD and 150 controls. The estimation of biochemical parameters SGOT, SGPT, Lipid profile, CKMB is done with commercially available diagnostic kits. MPO estimation is done by ELISA kit. Statistical data were expressed as mean \pm SD, independent student t-test. $P < 0.05$ was considered significant.

Result: On the basis of our result obtained MPO level is found to be significantly increased in patients of CAD.

Conclusion: MPO is found to be useful for the risk stratification in the patients of CAD

'SAARTHI' - STRETCHER AEROSOL RESTRICTION BOX

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Background: During the episodes of patient transport outside the isolation, potential breaches of infection control can occur as aerosol or contagious particles can spread in the atmosphere risking our crucial health workers and people around. Even as per the WHO, the aerosols can spread or travel up to 8 meters in the air. Thus, transfer of infected patients must be performed taking serious measures and utmost care protecting our healthcare workers.

Aim: To address this issue AIIMS Jodhpur has designed and developed a unique aerosol protection cabinet named as SAARTHI.

Methodology: This box can be mounted on any type of stretcher available in the hospitals. It's unique see through; can accommodate any size of patient comfortably. It has three windows to allow connection to oxygen line or any other life support systems even while in motion. Once the patient is comfortably placed on the stretcher, the cabinet smoothly slides over and covers it. The Institute has more than 100 stretchers for patient transfer in various areas the hospital. Few stretchers in Emergency and COVID wards were identified that could be used for transfer of COVID patients. We collaborated with local Industry Iscon Surgicals already specialized in manufacturing syringes and needles and created this unique aerosol restricting box which can be mounted on any type of stretcher, detachable, sturdy, economical, easy to maintain and clean. It can be manufactured easily anywhere without being dependent on International raw material.

Results and Conclusion: The fear and anxiety especially amongst hospital attendants, cleaners while transferring COVID patients were significantly reduced which led to the performance improvement. Due to the initial fear during start of the pandemic, there was lot of absenteeism from work especially amongst the ground staff. After this innovation, there was improvement in absenteeism from duty and healthcare workers were also satisfied about administration being caring of them.

A CASE REPORT: MUCOEPIDERMOID CARCINOMA OF PAROTID GLAND

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Background: Mucoepidermoid carcinoma is a relatively common neoplasm of the major and minor salivary glands that can secondarily involve skin. In the vicinity of the ear lobe, mimicry of a benign cyst, both clinically and cytologically is a diagnostic pitfall to avoid. So, the histopathological examination is a confirmatory and diagnostic tool.

Aim: To study clinical, cytological and histopathologic features of mucoepidermoid carcinoma of the parotid gland.

Methodology: A 11 year female patient who presented with a painless firm fluctuant swelling in right parotid region. The lesion was thoroughly examined clinically, and investigations were carried out. Fine-needle aspiration cytology was done for the lesion.

Results: Radiological findings are heterogenous soft tissue density lesions seen involving superficial lobe of right parotid gland. Fine-needle aspiration cytology report suggested benign cystic lesion with chronic inflammation. Histopathological features were suggestive of Mucoepidermoid carcinoma of parotid –Intermediate grade.

Conclusion: Mucoepidermoid carcinoma is a unique carcinoma as it demonstrates a broad spectrum of aggressiveness from indolent tumors that are cured by surgery alone to aggressive neoplasms that are prone to local invasion, recurrence, and metastasis.

VERTEBRAL HYDATID DISEASE – A RARE BUT EXISTENT PATHOLOGY

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Background: Hydatid cyst disease rarely seen in vertebral system at a rate of 0.2-1 %. It is most common in liver and lungs. It is mainly caused by *Echinococcus granulosus*. In our population, vertebral Hydatid cysts have become challenge to diagnose on clinical bases.

Aim: To study vertebral hydatid disease histopathologically and correlate it with clinical and radiological study.

Methodology: A 48 year female patient presented with lower backache, fever, difficulty in walking since 8 months. Patient was evaluating clinically, radiological and pathological aspects.

Results: Patient was diagnosed with vertebral hydatid as per radiological, pathological and surgical correlation.

Conclusion: Although vertebral Hydatid disease is a rare and benign pathology. But diagnosis is still a challenge as the site is rare and the disease mimics pott's spine and malignancy.

RHABDOMYOLYSIS - A RARE COMPLICATION OF ENTERIC FEVER

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Case Report: A young female presented with fever, diarrhea and acute renal failure in absence of hypovolemia, hypotension, hemolysis, thrombocytopenia and pre-existing renal disease with no past history of DM and Hypertension. P/S for malarial parasite and PfHRP antigen test was negative. No hematuria, any urinary sediment or any other evidence of chronic kidney disease. On evaluating further for cause of ARF, her CPK-TOTAL and Urine for Myoglobin were found to be raised in absence of muscle weakness. On further investigation she was not found to be having any other risk factor for Rhabdomyolysis like toxins, seizure, drugs, inflammatory myopathy, vigorous exercise, and family history of muscle disease. Her S. IgM for S. typhi and clot culture was positive and S. widal had an increasing titre for Enteric fever. She was treated successfully with antibiotics and sodium bicarbonate and was cured. Rhabdomyolysis is documented to occur with infectious diseases and viruses are the most common cause of it. This is a reported case of rare presentation of enteric fever as rhabdomyolysis.

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**A CASE REPORT:
POST MYOCARDIAL INFARCTION VENTRICULAR SEPTAL RUPTURE**

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Case History: A 68 year old female. K/C/O – HTN, DM-II admitted with STEAWMI on 30/10/2020 and thrombolysis by STK followed by PCI to LAD on next day and discharged with stable hemodynamics. After that she was presented with persistent dyspnoea on 6th day to trauma center hence her HRCT chest was done which s/o pulmonary edema hence admitted to Cardiac ICU. Her ECHO s/o Apical Muscular VSD which was not there during last admission hence CVTS opinion taken and explained in detail regarding surgery.

Diagnosis: Her clinical examination reveals persistent dyspnoea with hypotension, a continuous pansystolic murmur with transthoracic echocardiographic shows apical muscular VSD with left to right shunt confirm diagnosis.

Management: Initially patient managed with Diuretics, antibiotics and O2 support was started after diagnosis was established relatives were explained about surgery and risk of surgery and relatives decided to transfer the patient to higher center.

Discussion: Ventricular septal rupture (VSR) remains a devastating complication following acute myocardial infarction (MI). Surgical repair is the definitive treatment, but it is challenging and associated with high morbidity and mortality.

Outcome: After surgical closure of VSD, patient improved gradually and discharged after one week with stable hemodynamics.

**MULTIFOCAL INTRACEREBRAL HEMORRHAGE:
A RARE CASE PRESENTATION IN A PATIENT OF
CEREBRAL VENOUS SINUS THROMBOSIS**

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Background: Cerebral venous sinus thrombosis (CVST) is a relatively rare, potentially fatal neurological disorder accounting for 1% of strokes. CVST may present as headache, seizures, focal neurological deficit. It occurs when a blood clot is formed in brain venous sinus which prevents the blood from draining out of brain. As a result blood cells may break and leak in brain tissues forming a hemorrhage. Multifocal cerebral hemorrhage refers to cerebral hemorrhage in 2 or more sites at same time or occurring within 48hr in brain Here I am presenting a case of 29 year old male who presented with seizures and headache with no neurological deficit. It was found incidentally on neuroimaging

Aims: This highlights the importance of neuroimaging in patients of seizures. CVST as an etiology for multifocal intracerebral hemorrhage is rare yet significant phenomenon.

Methodology: A 29 year old male patient was admitted in the emergency of MBGH with complaints of seizures. He was evaluated for the cause of seizures.

Results: His neuroimaging revealed cerebral venous sinus thrombosis along with multiple intracranial hemorrhage. This case is thus being reported to highlight this rare association. **Conclusions:** Neuroimaging thus helped establish such a rare association in a patient of cerebral venous sinus thrombosis.

BARTTER'S SYNDROME WITH SHORT STATURE

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Background: Bartter syndrome is a rare inherited salt-losing renal tubular disorder characterized by secondary hyperaldosteronism with hypokalemic and hypochloremic metabolic alkalosis and low to normal blood pressure. The primary pathogenic mechanism is defective salt reabsorption predominantly in the thick ascending limb of the loop of Henle.

Case report: A 10 year old male child came to Geetanjali hospital with complaint of excessive urination (polyuria) and not gaining height and weight [weight & hight both less than 3rd centile]. On investigation Metabolic Alkalosis, hypochloreaemia, hypokalaemia with normal magnesium level, hypotonic urine, high urinary calcium:creatinine ratio, hypercalciuria.

Discussion: Early recognition and treatment are crucial for these children. Bartter syndrome patients need huge amount of potassium supplementation along with potassium sparing agent to maintain electrolyte imbalance

NEONATAL SCABIES A RARE ENTITY

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Background: Scabies is a contagious skin infestation by the mite *Sarcoptes scabiei*. The foremost common symptoms are severe itchiness and a pimple-like rash. Clinical Picture in neonates is unlike that of “adults” and “older children”, resulting in missed or delayed diagnosis.

Case History: A 4 weeks and 12 days healthy infant presented in paediatrics OPD for evaluation of the rash. Parents noticed rash 6 days ago and it had worsened over the last night. Parents initially observed small red nodules over the trunk and back which had spread to infant's neck and all over extremities. The patient's mother also had itchy lesions mainly over the hands and trunk. On examination small, erythematous macules, vesicles/bullae, and pustules, some of which were excoriated and surrounded by blood crusts. The distribution of the lesions involved the neck, trunk, back, and palms. For treatment we used syrup amoxicillin along with clavulanic acid for secondary bacterial infection and Permethrin 5% cream.

Discussion: Neonatal scabies is a unique subset with atypical presentations. Pruritis is not exhibited in such a young age group and neonate in our study presented just with rashes with no other significant association like loss of weight, poor feeding, dull baby, restlessness. Further in our study not just the mother but many other family members also had similar rashes and were diagnosed as confirming a case of scabies. The occurrence of neonatal scabies is thus “rare” and clinical presentation is unlike that of older children and adults.

ORBITAL CELLULITIS IN PAEDIATRIC PATIENTS WITH SINUSITIS

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Background: In pediatric sinusitis despite the use of broad-spectrum antibiotics, complications arise from the infection of paranasal sinuses. Orbital complications can even cause loss of vision. These complications can be divided into ocular manifestations and cavernous sinus thrombosis. Orbital cellulitis is a common life-threatening infection of the post-septal tissues of the orbit and a common cause of orbital inflammation.

Aim: To identify the characteristics of orbital cellulitis in patients with sinusitis.

Methodology: The investigations were done- WBC (total and differentials), skull X-ray, MRI brain with orbits, blood culture, culture and sensitivity of conjunctival discharge.

Results: Sinusitis is a common predisposing factor for orbital cellulitis and abscess formation. Secondary to sinusitis, 60%–91% of orbital cellulitis has been reported. Ethmoidal and maxillary sinuses are most commonly affected. It is characterized by acute onset with rapid progression and is accompanied by fever. If it is left untreated or treated ineffectively, complications may develop which include cavernous sinus thrombosis, meningitis, frontal abscess, and osteomyelitis, loss of vision and death. Intracranial and intraorbital complications occur in children more frequently than in adults with an incidence of 3%.

Conclusion: The main organisms in children affected with orbital cellulitis are *Streptococcus* and *Haemophilus* and the treatment depends on the culture report. The treatment of preseptal and orbital cellulitis requires a combined approach of a paediatrician, an ophthalmologist and otorhinolaryngologist, and further advice taken from the neurosurgical and neurology teams.

SUBACUTE SCLEROSING PANENCEPHALITIS (SSPE) IN 8YEARS OLD CHILD

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Background: Subacute sclerosing panencephalitis (SSPE) is still a common disease in India characterized by a progressive mental decline, myoclonus, periodic encephalographic abnormalities and raised anti-measles antibody titer in the cerebrospinal fluid. Acute fulminant SSPE is characterized by a rapid course of disease culminating in death, within 6 months

Aim: Importance of universal coverage of measles vaccination

Case Report: We report of an 8-year-old boy, who came with a 14-day history of continuous involuntary jerky movements of the left half of the body, including head. There was a highly increased anti-measles IgG antibody titer, both in the cerebrospinal fluid and serum. The patient was treated with levetiracetam and clobazam. Intravenous midazolam (0.2 mg/kg) stopped the jerks within 10 minutes, only to reappear after an hour. The patient was also treated with intravenous methyl prednisone for 5 days. However, the condition of the patient kept on deteriorating and he became akinetic and mute. The family was counselled about the disease, and they preferred to take him home. The child died approximately 1 month after leaving the hospital.

Discussion: This case highlights that acute rapidly progressive SSPE can present as acute encephalitis. Whenever there are unusual clinical manifestations and neuroimaging picture, CSF should be examined for anti-measles antibodies. Anti-N-methyl-d-aspartate receptor encephalitis, although is a close mimic but expensive antibody, testing should be performed after excluding rapidly progressive SSPE by cerebrospinal fluid anti-measles antibody titer estimation.

**CROHN'S DISEASE- PRESENTED AS REFRACTORY IRON DEFICIENCY ANEMIA
DIAGNOSED WITH USE OF MODERN DIAGNOSTIC MODALITIES**

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Background: Crohn's disease is a chronic, relapsing disorder of the gastrointestinal tract, belonging to the inflammatory bowel disease.

Case Report: A 13-year-old female came to Geetanjali Hospital with complaint of on and off headache, uneasiness, easy fatigability and generalized weakness for last 10 years. She had history of hospitalization for 9 times with severe anemia, required blood transfusion 9-10 times. Every time complete blood count with indices and peripheral smear suggestive of severe iron deficiency anemia. Despite receiving repeated iron therapy, child presented with severe anemia.

Discussion: Crohn's disease is a type of inflammatory bowel disease and can occur throughout the gastrointestinal tract with the ileocecal region being the most common site, fever, malaise, abdominal pain and easy fatigability are common symptoms. Iron deficiency as an associated features but as an only presentation is rare. Hence any child showing features of deficiency should be investigated and treatment initiated as early as possible.

UNCONTROLLED TYPE-2 DIABETES IN A CHILD WITH PRADER-WILLI SYNDROME: A CASE REOPRT

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Background: Prader-Willi syndrome (PWS) is a complex neurodevelopmental genetic disorder due to paternal loss of imprinted genes on chromosome 15 and characterised by range of mental and physical findings. PWS was first described by Prader, Labhart, and Willi in 1956. Since that time over 800 cases have been reported in the literature and incidence is one in every 10000 to 20000 individuals. It occurs in both sexes and all races with no significant preponderance.

Case Report: A Case of A 14-years old, male, with obesity, short stature, uncontrolled glycaemic status, hypogonadism, generalised infected skin ulcers and acutely developed severe respiratory distress, tachycardia and cyanosis was studied.

Discussion: Patients presenting with obesity and hypogonadism should always be considered for any syndromic cause. Clinical examination and work up should be done to distinguish type 1 and type 2 diabetes mellitus because in type 2 diabetes blood sugars can be managed by oral hypoglycaemic drugs, which is not possible in type 1.

Conclusion: On the basis of clinical evaluation and investigations child was diagnosed Prader-Willi syndrome with uncontrolled type 2 diabetes mellitus, hypothyroidism and hypogonadism with secondary septicaemia. Patient was discharged on oral hypoglycaemic drugs.

HURLER SYNDROME

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Background: Hurler syndrome is a progressive multisystem disorder due to autosomal recessive inherited deficiency of lysosomal enzyme alpha L-iduronidase which leads to intracellular accumulations of glycosaminoglycans. Case Report: Patient is an 11-year-old male who presented with complaints of difficulty in breathing, fever, abdominal distension and generalized edema. As per the parents, child's milestones have been slowed since the age of 2 years with decline in mental and physical functions. Associated symptoms included difficulty in ambulation secondary to extremity joint stiffness since the last few years. During the sleep patient experienced noisy breathing for years.

Discussion: Hurler phenotype (MPSH-H) presents early, is a rapidly progressive disease with neurological involvement in 50-80% of cases. Children present with variable degree of corneal clouding, hepatosplenomegaly, cardiac deformities, skeletal deformities, stiff joints. Hurler-Scheie is an intermediate phenotype and Scheie is an attenuated phenotype with slower progression in which CNS is not involved. Estimated prevalence of Hurler Syndrome is 0.6-3.8 per 100,000 live births. Most common cause included autosomal recessive deficiency of alpha L-iduronidase (IDUA) while other less common causes include mutations in IDUA and allelic variations in MPS I. Reduced IDUA in the body results in extracellular accumulation of glycosaminoglycans in organs like heart and brain. Diagnosis is usually clinical, confirmatory testing can be done with blood and urine tests as we did and imaging is usually for the purpose of complications.

**COMPARISON OF ELISA AND NAT TECHNIQUES AMONG BLOOD DONORS
AT RNT MEDICAL COLLEGE, UDAIPUR**

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Background: Blood transfusion is most important part of medical treatment and is also associated with risk of transfusion transmitted infections (TTIs). Hence screening of blood bags is important to ensure safe blood transfusion.

Aim: The present study was done to evaluate the ability of nucleic acid testing (NAT) and to compare it with ELISA assay to detect Window period for HBV, HCV, and HIV in the donor population of the blood bank of RNT Medical College, Udaipur, Rajasthan.

Methodology: A total of 12836 donors were screened over 6 months to assess the seroprevalence of infectious disease markers. Blood units were screened for the five commonest TTIs namely HIV I & II, HBsAg, HCV syphilis and malaria using screening test like ELISA and Rapid Kit, peripheral smear and VDRL tests. All reactive samples were retested. Seropositive blood bags were discarded. All non-reactive samples were sent for confirmation testing by NAT technique for HIV I & II, HBsAg, HCV to reduce the risk of TTIs in the recipients, thus providing an additional layer of blood safety.

Results: Out of 12836 blood donors, 58 were seropositive for the TTIs. Totally 38 units were positive for HBsAg infection, out of those 37 were detected HbsAg positive by ELISA and 1 seropositive donor which was not detected by the serological test was detected by the NAT. 15 and 5 units were positive for HIV 1 infection and HCV infection respectively, out of those all samples were detected positive by both ELISA and NAT tests.

Conclusion: NAT implementation is likely to reduce the TTIs and its implementation will be a valuable addition to the existing safety efforts.

AN ANALYSIS OF ADVERSE DONOR REACTIONS OF THE HEALTHY BLOOD DONORS

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Background: Blood transfusion service is the vital part of modern health care system without which, efficient medical care is impossible. To meet the potential needs for adequate blood supply, it is beneficial to increase the number of blood donors and the blood donation rate. Although the blood donation is the safe and uncomplicated procedure, occasionally donors experience adverse reactions during or after donation; but they are usually harmless. Complications associate with blood donation are not only the problem of donors but they are also important to transfusion services as some complication may negatively affect donor recruitment and retention.

Aim: The present study was done to to analyse adverse donor reactions during and after blood donation.

Methodology: The prospective study was conducted in blood bank R.N.T .Medical college, Udaipur during January 2021 to April 2021 to analyse adverse donor reactions. Blood donors were selected as per the SOP of our department and donations were collected under observation. Donors were observed during the donation period and post donation instructions were given before the donor left the center. Complications which the donor attributed to blood donations were also noted during study.

Results: Among 7503 healthy blood donors, 4089 were voluntary blood donors and 3414 were replacement donor. Among these 7356 are males and 147 were females. During the study period 67 adverse donor reactions occurred with 3.65% (3/82) in females and 1.3% (64/4918) in males. Among 87 adverses reactions 65 reactions wherein first time donors. Total of 78 post donation complications were noticed as against 9 reactions during donation.

ACTIVE INFLAMMATORY STAGE OF PLAQUE TYPE MORPHEA

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Background: Morphea, also known as juvenile localized scleroderma (JLS), is a chronic, slow-progressing autoimmune, inflammatory connective tissue disease with unknown aetiology that mostly affects the skin and underlying tissues.

Case Presentation: The case is of an 10 year-old boy who presented with indurated hyperpigmented shiny plaques, over left upper extremity of six month duration, with linear hypertrophic scar of previous surgery done on same site. The clinical characteristics and diagnostic testing, including histology, were consistent with morphea of the localized plaque type. He initially tried physiotherapy and occupational therapy.

Conclusions: Misdiagnosis of localized plaque type morphea, and surgery led to trauma which further acted as trigger agent for disease, however early diagnosis and the response to treatment was positive as expected.

RURAL - URBAN DIFFERENCES IN CLINICAL SEVERITY AND PSYCHOSOCIAL RISK FACTORS OF DEPRESSION: A HOSPITAL BASED STUDY

Dr Divya Modi

Background: Major depressive disorder (MDD) is the most common mood disorder. It has a multifactorial aetiology and individual characteristics such as the level and quality of education; income, wealth, beliefs and behaviours may differ between rural and urban residents leading to differences in depression and its prognosis.

Aim: To determine rural-urban difference in clinical severity of depression and anxiety, quality of life, stressful life event and specific Socio-demographic variables in patients with major depressive disorder (MDD).

Methodology: This cross-sectional comparative study was conducted in 121 urban and 155 rural patients. The patients were assessed using Depression Anxiety Stress Scale (DASS), Short Form-36 (SF-36), and Presumptive Stressful Life Events Scale (PSLES).

Results: The severity of depression was more in urban groups when compared to rural groups with a statistically significant ($p < 0.0001$). The significant difference ($p = 0.025$) between the QoL in patients of MDD from urban and rural group in the domain of role limitations due to emotional problems. Self-harm was found to be more in urban group when compared with their rural counterparts. Urban group had more statistically significant positive family history when compared with rural group.

Conclusion: The study areas reported a high prevalence of depression, a brief and rapid assessment of depression while examining the persons should be carried out in health centers and hospitals on a routine basis for early diagnosis and management for better QoL.

TO COMPARE QUALITY OF LIFE AMONG NORMAL CONTROLS, BIPOLAR AFFECTIVE DISORDER AND SCHIZOPHRENIA PATIENTS DURING REMISSION IN UDAIPUR REGION

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Background : uality of life is a multidimensional concept that emphasizes an individual's satisfaction with all aspects of life and includes physical, social, environmental and psychological well being.

Aim: To compare quality of life among normal controls, bipolar affective disorder and schizophrenia patients in remission.

Method: It was a comparative cross sectional observational study conducted in department of psychiatry, M.B. Govt. Hospital, R.N.T. Medical College, Udaipur. There were two case groups already diagnosed cases of bipolar affective disorder or schizophrenia according to ICD-10 criteria and one control group were assessed through scale for quality of life WHO-QOL-Bref. The data were analysed using SPSS17.0 for windows.

Result: Quality of life scores were highest for control group followed by BPAD patients group and lowest for schizophrenia patients group in all four domains.

Conclusion: The quality of life of schizophrenia patients and bipolar disorder patients is low as compared to normal controls.

**PERSONALITY PROFILE OF PATIENTS WITH DEPRESSION, OBSESSIVE-
COMPULSIVE DISORDER: A COMPARATIVE STUDY**

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Background: Traits associated with most of the models of personality such as neuroticism, extraversion, harm avoidance, reward dependence, novelty-seeking are implicated in various disorders including Depression and OCD.

Aims: To assess the personality profile in patients with depression and OCD.

Methodology: A comparative study based on consecutive sampling comprising 50 patients each with depression, OCD, and healthy controls diagnosed based on ICD-10 criterion screened out using Eysenck personality questionnaire.

Results: Patients with depression and OCD had higher neuroticism, introversion, psychoticism, and lie sub-scale scores compared to healthy controls but when compared within themselves, all the traits had significant differences except neuroticism

Conclusions: All the traits such as neuroticism, introversion, psychoticism traits were more associated with depression and OCD whereas all the traits had differences between these patients with depression and OCD except neuroticism which implicates the patients with depression were more introverted but experienced similar distress as patients with depression.

AUTOSCOPIC HALLUCINATION IN SCHIZOPHRENIA: A CASE REPORT

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Background: An autoscopic hallucination is a purely visual impression of seeing one's own body or its different parts as if being reflected in a mirror. Male predominance has been recorded in organic settings. However, it has only been recorded in a few cases of psychiatric disorder.

Case Report: A 31-year-old unmarried female presented with symptoms of insidious onset, for last five years, characterised by auditory hallucinations: voices were discussing and commenting type. In addition to hearing voices, she had delusions of persecution and reference, for last two years, in addition to above symptoms she would look fearful and point her fingers towards the wall. On enquiry she told that she would see herself i.e. a photocopy of her, in front, about 2-3 feet away from her body. She would describe her double with the similar facial features, colour and style of hair, complexion, in fact, she would say it is "another me". She was brought to our OPD and diagnosed with schizophrenia. On mental status examination, the affect was fearful, she had auditory hallucinations discussing and commenting type, delusion of persecution, and impaired judgment with poor insight were present, but no history of seizures, brain insult etc. On Mini-mental state examination she scored 28/30. Her physical and Neurological examinations were unremarkable. Visual field was intact. All investigations including neuroimaging were within normal limit. Diagnosis of schizophrenia was made and started on Tab. Aripiprazole up to 20 mg/day. She recovered completely over 3-4 months.

SUICIDALITY AND SCHIZOPHRENIA: A CASE REPORT

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Background: Schizophrenia is characterised by disturbances in multiple mental modalities, including thinking, self-experience, cognition, affect, and behaviour. Patients of schizophrenia are known to attempt self harm due to commanding or threatening hallucinations, catatonic excitement or associated depression. Risk of self harm is 22.59% out of which 10% had attempted suicide at least once.

Case Report: A 27 year old male was brought to casualty with deep incised wound on anterior aspect of neck with a knife. His complaints were: Suspiciousness/fearfulness that people are coming to kill him, hearing voices of these people threatening to end his life, muttering to self and irritability/abusive behavior without any provocation, all since 1 month following an altercation with the neighbourhood boys. He was found to have a damaged trachea which was subsequently repaired. He had past history and family history of paranoid schizophrenia but symptoms had subsided on medications following which he had stopped treatment 2 months back. He was treated with Inj. Haloperidol 5mg with Inj. Promethazine 50mg on SOS basis. T. Risperidone was started which was gradually increased to 6mg along with T. Trihexiphenidyl 2mg and patient improved on the same.

**DIFFERENTIAL MORTALITY IN COVID-19 PATIENTS: AN OBSERVATIONAL STUDY
IN TERTIARY CARE CENTRE, JAIPUR**

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Background: In INDIA, COVID-19 has currently more than 3.4 crore cases and 4.6 lac deaths and these figures keep changing. It is intriguing to note that various cause of mortality have been noticed amongst the deceased which has evolved as the pandemic raged on affecting almost all age groups.

Aim: To study cause and distribution of COVID-19 deaths with various factors involved in the death of COVID patients admitted in tertiary care centre hospital, Jaipur.

Methodology: Observational study conducted at tertiary care centre in Jaipur from June 2020 to October 2020. Data was collected from patient record files, entered and analysed in Microsoft excel. The qualitative data is summarized in form of percentage and proportions.

Results: During study period total 856 deaths happened due to COVID-19. The most commonly affected age group was above 60 years (50.51%) followed by 40 – 60 yrs age group (30.45%). More deaths were seen in males (68.85%) than females (31.05%). The most common cause of death was acute respiratory failure (44.85%) followed by cardiopulmonary arrest (15.42%).

Conclusion: The study concluded that elderly males were most commonly affected and majority of mortality was due to acute respiratory failure. Complete coverage of COVID-19 vaccination and following COVID appropriate behavior are must to minimize further deaths.

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**UTERINE RUPTURE IN A PRIMIGRAVID PATIENT-
AN UNCOMMON BUT SEVERE OBSTETRICAL EVENT: A CASE REPORT**

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Background: A spontaneous rupture of the unscarred uterus in a primigravida patient is extremely rare and is associated with high perinatal and maternal morbidity and mortality. Case presentation: A 30-year-old primigravida woman, 39+ 5 weeks of gestation, referred as obstructed labor with fetal heart sound not localised. An emergency laparotomy was performed and a uterine rupture was found as the cause of the event. A stillborn girl was born.

Conclusion: A rupture of the pregnant uterus should always be considered in a pregnant woman in obstructed labor with fetal heart sound not localised, even in a primigravida patient.

FACTORS FOR ECTOPIC PREGNANCY

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Background: Ectopic pregnancy is one of the main cause of maternal death during first trimester of pregnancy. It constitutes 10% pregnancy related death. Thus increasing alertness and understanding the risk factors causing it allow early and precise diagnosis resulting in timely intervention.

Aim: To identify the potential risk factors and to evaluate their contribution in ectopic pregnancy.

Methodology: This hospital based case control prospective study was done at a referral center. Only those patients who had an established diagnosis of ectopic pregnancy were taken as cases (65 cases), for each case one control that is women with first trimester intrauterine pregnancy was included. Data were analysed using univariate analysis to find out crude odds ratio and p value.

Result And Conclusion: Risk factors which were found statistically significant were tubal ligation, pelvic inflammatory disease, age > 30 years, prior spontaneous abortion, prior IUCD use, tubal infertility, genital tuberculosis, low socioeconomic status. So we can conclude that increased awareness and knowledge of risk factors will help obstetricians to diagnose ectopic pregnancy timely and accurately and enable them to plan medical treatment instead of surgical treatment as it affects future fertility of the women

CAESAREAN SCAR ECTOPIC PREGNANCY

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Background: A Pregnancy implanted within the uterine myometrium at the site of a healed caesarean scar is called a caesarean scar pregnancy. It has been extremely rare occurrence. Its incidence is also increasing with estimations among women with prior CS deliveries to be up to 1:2000 pregnancies.

Case History: 35years old G3P2L2 female @10wk 5day of gestation by LMP presented with complaint of bleeding per vagina since 5 days in form of spotting for the intial 2 day f/b soakage of 2-3 pads per day associated with lower abdominal pain since 3-4 days. pt vitals are stable, ANC profile WNL, USG, MRI and beta hcg level are done.

Conclusion: As caesarean scar ectopic pregnancy is a rare condition and can present differently based on location and type. There is no management proved superior. Thus early diagnosis can help avoid the complications and dependence on more aggressive invasive.

MISPLACED IUCD

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Background: Intrauterine devices are the second most common contraceptive devices used worldwide. One of the reasons for discontinuation rate of 20-40% is the fear of complications such as excessive bleeding, pain, infection, uterine perforation and spontaneous expulsion. Uterine perforation is rare, however it has a potential health risk and is often silent. Health workers need to be aware of this complication and should take necessary precautions while inserting copper T.

Case Report: Patient Devi admitted with complaints of lower abdominal pain according to history and investigations she was diagnosed a case of misplaced IUCD. But on laparoscopy there was a metallic clip in pelvis which was removed.

Conclusion: All migrated IUCD must be removed as it can cause bowel and bladder perforation, fistula formation. Missing copper T should be identified using USG, pelvic X-ray/CT scan. Removal by hysterolaparoscopy is the best approach. The prevention of complication due to migrated copper T is by early detection and regular follow up. However, prior to laparoscopy detailed history of previous surgery should be taken. At the time of insertion patient should be motivated enough to check the tail of copper T, spontaneous expulsion should be explained to the patient. However, prior to surgery detailed history about previous surgery should be taken.

EARLY PREDICTORS OF PREGNANCY INDUCED HYPERTENSION

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Preeclampsia is a multi-system progressive disorder characterized by the new onset of hypertension and proteinuria, or hypertension and significant end-organ dysfunction with or without proteinuria, in the last half of pregnancy or postpartum. The genesis of the disease is laid down in early pregnancy and is characterized anatomically by abnormal remodeling of the maternal spiral arteries at the placental site. Effective screening for the development of early onset preeclampsia (PE) can be provided in the first-trimester of pregnancy. Screening by a combination of maternal risk factors, uterine artery Doppler, mean arterial pressure, maternal serum pregnancy-associated plasma protein-A, and placental growth factor can identify about 95% of cases of early onset PE for a false-positive rate of 10%. The prevalence as well as the impact of these disorders is more severe in developing countries as reflected by higher number of maternal deaths and complications related with eclampsia. These discrepancies are because of poor patient education, limited access to prenatal care, inappropriate diagnosis and management of the patients. Vasculature was also prominent in these areas. Despite the fact that little is known about the pathogenesis of pre eclampsia, one of the recognized hypotheses is that it develops as a result of immune maladaptation between mother and fetus resulting in alteration of placental formation with decrease in utero placental blood flow leading to IUGR.

ECTOPIC PREGNANCY

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Background: Ectopic pregnancy is a cause of pregnancy related deaths. Its incidence is increasing and has risen from 4.9/1000 pregnancies in 1970 to 9.6/1000 pregnancies in 1992 .Incidence varies from 1 in 300 to 1 in 150 deliveries. The reason for this increase has not been fully elucidated, but the possible contribution of pelvic inflammatory disease and intra-uterine contraceptive device use has been cited as contributing factors.

Methodology: 62 patients were admitted through emergency or outpatient department. After history and examination, provisional diagnosis was made. Relevant investigations included complete blood picture, blood group, serum β hCG and ultrasound. Other investigations i.e. the liver function tests and platelets were done in patients who were given methotrexate.

Results: Majority of patients with ectopic pregnancy were in 21-25 years age group (50%). The commonest presenting symptom was abdominal pain in 90% (n=56) followed by vaginal bleeding in 33.8% (n=21) and fainting in 12.9% (n=8). Five patients were asymptomatic and ectopic pregnancy was detected on ultrasound done for confirmation of pregnancy. All patients were treated surgically. Among surgically treated patients 48 had total salpingectomy. Tubal expression of ectopic gestation by milking of tube was done in one patient.

**FIRST TRIMESTER SPONTANEOUS UTERINE RUPTURE IN A YOUNG WOMAN
WITH UTERINE ANOMALY: A RARE CASE REPORT**

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Background: Spontaneous uterine rupture is a life-threatening obstetrical emergency carrying a high risk for the mother and the foetus. Spontaneous uterine rupture in early pregnancy is very rare complication and it occurs usually in scarred uterus. Uterine anomalies are one of the reasons for spontaneous unscarred uterine rupture in early pregnancy. Obstetricians must consider this diagnosis when a pregnant patient presented with acute abdomen in early pregnancy.

Case Report: I am presenting here a case of spontaneous uterine rupture at 12 weeks of gestation in 24-year-old who had uterine anomaly presenting as an acute abdomen. Our preoperative diagnosis was ectopic pregnancy. Emergency laparotomy confirmed a spontaneous uterine rupture. Uterine anomaly is a risk factor for spontaneous uterine rupture in the early pregnancy. Clinical signs of uterine rupture in early pregnancy are nonspecific and must be distinguished from acute abdominal emergencies.

**A COMPARATIVE STUDY OF MATERNAL AND FETAL OUTCOMES IN
OBESE AND NON-OBESE PREGNANT WOMEN**

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Background: World Health Organization (WHO) classifies obesity as BMI (Body Mass Index) $>30\text{kg}/\text{m}^2$. Increased BMI is accepted as a significant indicator of risk of morbidity.

Aim: To compare fetomaternal outcome in obese and non-obese pregnant women and to reduce the complications and associated problems in obese women in future.

Methodology: This is a hospital based longitudinal case control study. 150 obese pregnant women as case group and 150 non-obese pregnant women (BMI-18.5-24.9 kg/m^2) taken as control group. After applying inclusion and exclusion criteria fetomaternal outcome were analyzed.

Results & Conclusion: In obese group, 65% cases were from urban area, percentage of hypertensive disease of pregnancy is 27.6% as compared to control group (10.1%). Risk of preterm labour pain (25.5%) vs 12.1%, gestational diabetes 12% vs 2.0% found more in obese group as compared to control group. Fetal distress present in 16.3% case of obese group as compared to 8.1% in control group. Higher rate of lower segment cesarean section were found in obese group as compared to control group. NICU admissions were higher in obese group. Primordial prevention, dietary modification from early life and lifestyle changes can be helpful to reduce maternal and perinatal mortality along with proper management of pregnant women with obesity.

A PARTIAL MOLAR PREGNANCY WITH AN INTRAUTERINE GROWTH-RESTRICTED FETUS DELIVERED AT 36 WEEKS: A CASE REPORT

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Background: Molar pregnancies belong to a group of diseases classified as gestational trophoblastic diseases which result from altered fertilization. A hydatidiform mole with a coexistent live fetus is a very rare condition occurring in 0.005 to 0.01% of all pregnancies. As a result of its rarity this condition, diagnosis, management, and monitoring will remain challenging especially in places with limited resources and expertise and when clinician signs are almost completely absent.

Case Report: We report a case of a 28 years old woman with partial molar pregnancy that presented with bleeding per vaginally and operated for placenta previa with the transverse lie and she delivered a live baby female who was preterm, morphologically normal and there was a single large placenta showing molar changes.

Conclusion: even though the incidence of this condition is very rare, suspecting, recognizing, and diagnosing it is very important in patients presenting with the bulky placenta and IUGR foetus and placenta should be sent for histopathological examination.

**A PROSPECTIVE COMPARATIVE STUDY TO ASSESS THE IMPACT OF MATERNAL
BODY MASS INDEX ON OBSTETRIC OUTCOME**

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Background: The prevalence of obesity is increasing steadily even in developing countries as economic prosperity has increased. In developing countries like India, overweight and obesity often co-exist with under-nutrition.

Methodology: Hospital based prospective comparative study was conducted on 100 women in each group including normal, high and low maternal BMI.

Results: The average weight gain during pregnancy 7.42 ± 2.68 kg, in underweight category it was 6.32 ± 2.98 kg while it was 8.36 ± 2.68 kg in normal BMI category. Postpartum complications like PPH were insignificantly higher in overweight category.

Conclusion: Maternal BMI shows strong associations with pregnancy complications. Attempt should be made to prevent obesity in women of childbearing age and encourage weight loss to attain ideal weight before pregnancy.

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**SOLID PSEUDOPAPILLARY EPITHELIAL NEOPLASM (SPEN):
A RARE CASE REPORT**

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Background: Solid pseudopapillary tumor is a rare primary neoplasm of the pancreas that typically affects young women. It is a relatively a benign tumor, with a favorable prognosis. Case Report: We here report a 22-year-old woman with solid pseudopapillary neoplasm (10*10cm), who presented with Left upper quadrant pain. Ultrasound was suggestive of mass, CT scan confirmed the diagnosis. The patient underwent spleen preserving distal pancreatectomy. Post-surgical biopsy confirmed the diagnosis. The patient was not given any adjuvant therapy. She remained asymptomatic and showed no signs of disease after four months follow-up.

Conclusion: It is important to differentiate this tumor from other pancreatic neoplasms, because this type is amenable to cure after complete surgical resection, even in cases with capsular invasion, unlike malignant tumors of the pancreas.

**A RARE CASE OF PERFORATION OF MECKEL'S DIVERTICULUM
BY FOREIGN BODY**

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Case Report: A 21-Year-old Patient was referred to GMCH, Udaipur from local PHC on 10/01/2020, with complaint of right lower abdominal pain and vomiting for 2 days. On examination pulse – 98/min, mild tenderness over right iliac fossa present, other general and physical examination were within normal limits. All routine investigations were done, X-ray chest suggestive of gas under diaphragm & USG was S/o –a peristaltic, non-compressible blind gutloop of diameter 5.8 mm with mild probe tenderness & few adjacent enlarged LN noted in RIF, likely mild inflamed appendix. Clinical picture was more in favour of burst appendicitis. Patient was taken in for Emergency and Exploratory laparotomy. Intraoperatively appendix seemed to be normal, on exploration Meckel's diverticulum perforated with foreign body was found, excised and sent for biopsy. Post operatively patient's vitals were stable and Biopsy was suggestive:

- 1) Meckel's diverticulum - All section show diverticulum lined by all layers of small intestine.
- 2) Foreign body - Dark brown wooden pieces measuring 2.5cm in length. Patient was discharged on 20/01/2020.

As Meckel's Diverticulum is a true congenital diverticulum, it's an abnormal sac/bulge arising from the terminal ileum and is part of the unobliterated proximal portion of the Vitello intestinal duct.

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BOERHAAVE'S SYNDROME

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Background: Boerhaave's syndrome, now known as spontaneous esophageal rupture. It is a rare syndrome and is caused by a sudden increase in intraesophageal pressure against a closed cricopharyngeus combined with negative pressure in the thoracic cavity, leading to vomiting, pain in the lower thoracic cavity and subcutaneous emphysema known as Mackler's triad.

Case report: A 36-year-old male came to GMCH with presenting complaints of cough, hematemesis, sharp pain in the chest and a history of recent excessive alcohol intake and was admitted for the same. Chest x-ray showed left-sided pleural effusion and endoscopy was suggestive of esophageal rupture for which SEMS stenting was planned.

Discussion: A delay in diagnosing this syndrome or spontaneous rupture would lead to serious mediastinal infection and sepsis leading to high mortality. The rate of missed diagnosis in this syndrome is reported to be as high as 50% because the symptoms of it are not specifically specified. The principle of management would include early diagnosis, adequate drainage of extraesophageal contamination, restoration of esophageal integrity or classical surgical management.

**MANAGEMENT OF A LIFE THREATENING LIVER INJURY
(A STITCH IN TIME SAVES NINE)**

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Background: Non operative management of blunt hepatic injuries is now a days treatment of choice in the hemodynamically stable trauma patients, with recent clinical series reporting success rates of 90%. Even patients with high-grade liver injuries can be successfully managed without operation.

Case Report: A 19 year old patient had history of blunt abdominal trauma due to fall from height presented in emergency department with pain in abdomen and moderate shock. Primary resuscitation was done along with fluids, blood products and inotropes in surgical intensive care unit. Investigations were suggestive of gross fluid in peritoneal cavity with evidence of grade 4 liver injury with active bleeding from right hepatic arterial branch. After stabilization of the patient, hepatic artery embolization was performed successfully. Selective right hepatic arterial branch coiling was done where 2 coils were used. In Post coiling period overnight patient showed further improvement in vitals and there was no further requirement of inotropic support and blood products.

Conclusion: Hepatic artery embolization and angiography are a useful adjunct in the management of hepatic injuries in hemodynamically stable patients and even in controlling bleeding from deep surgically inaccessible areas. A stitch in time saves nine.

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**GIANT, AGGRESSIVE BRAIN METASTATIC LESION:
PAPILLARY THYROID CARCINOMA**

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Background: Papillary thyroid carcinoma is most common thyroid malignancy, accounting for 70-80% with uncommon metastasis, most commonly involving cervical lymph nodes. Distant metastasis to bones and lungs is 6-20% least being to brain i.e., 0.15% - 1%. Brain metastasis is proved to be the most aggressive with least survival rate (1 year).

Case Report: Here we report an unusual presentation of papillary thyroid carcinoma with giant brain metastasis, with out any symptoms pertaining to thyroid malignancy. 82-year-old female presented with large mass over her forehead since 2 years approx. 13cm * 12cm * 4 cm in size with only complain of large mass encroaching over her orbital region, obstructing her vision. Patient was investigated with FNAC which was suggestive of benign adnexal tumour. CT imaging was suggestive of Malignant Melanoma, Osteosarcoma, Chondrosarcoma. After operating intracranial mass, H.P.E was suggestive of Papillary thyroid carcinoma. After that USG thyroid was done that was suggestive of 2.3 cm * 1.2 cm nodule in right lobe of thyroid. Later on thyroidectomy was done. The presented case has very rare clinical presentation with rare radiological findings of one of the most common thyroid malignancy.

**IVC RECONSTRUCTION WITH AUTOLOGOUS PERITONEAL TUBE GRAFT
FOLLOWING RESECTION OF IVC LEIOMYOSARCOMA**

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Background: Leiomyosarcomas (LMS) are tumors of mesenchymal origin that arise from smooth muscle cells. LMS of the inferior vena cava (IVC) are exceedingly rare, accounting for 0.5% of all adult tissue sarcomas. Vascular LMS are known for their aggressive behavior in terms of local infiltration and distant metastasis.

Case Report: A 53-year-old woman was affected by a large leiomyosarcoma originating from the infrarenal IVC. A CT scan revealed mass lesion arising from infrarenal IVC and abutting 3rd and 4th part of duodenum. Resection of IVC sarcoma with PTFE graft IVC reconstruction (end to end) was done. A contrast CT scan was done to check for patency of PTFE graft, which showed complete thrombosis of graft on POD 2. Re-exploration was done and thrombosed graft was replaced by autologous peritoneal conduit graft. Patient had uneventful recovery after second surgery. She was discharged with satisfactory condition on POD 5. After follow up of 1 year she is alive and disease free.

Conclusion: Vascular leiomyosarcomas are rare tumor. Aggressive surgery with adjuvant chemotherapy/ radiotherapy if required remains standard treatment. Here we present a rare case where complete infrarenal IVC was reconstructed with peritoneal tube graft successfully.

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LEPTOMENINGEAL METASTASIS FROM MELANOMA EMULATING CHRONIC SUBDURAL HEMATOMA

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Background: Leptomeninges means arachnoid and piamater which covers the brain. Melanoma is type of disease in which patient is unaware about the primary lesion in majority of cases and it has propensity to metastasise to any organs in human body. Leptomeningeal metastasis is defined as the appearance of tumor cells in the leptomeninges or cerebrospinal fluid distant from the site of a primary tumor. Nonspecific symptoms occur like headache and mental status changes, confusion, dementia, seizures, and hemiparesis. Due to nonspecific and pleomorphic presentations, other diagnoses are entertained like primary brain cancer, chronic meningitis, paraneoplastic syndromes and subdural hematoma.

Case report: We report a case of 56 year old lady presenting with headache, recurrent vomiting and slurring of speech which on imaging suggestive of chronic subdural hematoma but later on was diagnosed with leptomeningeal metastasis from melanoma.

Conclusion: Vigilance is much needed in any case presented in emergency. As the diagnosis of chronic subdural hematoma is followed by surgical treatment which is not done in leptomeningeal metastasis, hence patient was managed conservatively.

PERITONEAL DEFECT HERNIATION CAUSING SMALL BOWEL OBSTRUCTION: A RARE COMPLICATION OF TRANSABDOMINAL PREPERITONEAL REPAIR

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Background: Laparoscopic approaches to inguinal hernia repair are becoming increasingly more popular as they offer many advantages to open techniques including faster recovery and lower rates of wound infection. However, it is important to recognize complications associated with newer techniques which only become apparent with increased volume and experience.

Case Report: In this report, we describe a rare case of small bowel obstruction (SBO) secondary to peritoneal defect herniation post-transabdominal preperitoneal repair (TAPP). This is an uncommon complication that is sparsely reported in the literature but may have devastating consequences for the patient if unrecognized or mistakenly attributed to adhesional SBO. A high index of suspicion for internal herniation and a low index for reoperation are important with SBO in the early postoperative phase post-TAPP. **Conclusion:** Our case highlights three important learning points. Firstly, SBO secondary to PDH post-TAPP is a highly uncommon complication that was not previously encountered in our high-volume practice and is sparsely reported in the literature. However, an awareness of this is important as TAPP becomes more frequent, as a delay in diagnosis can have serious consequences. Secondly, diagnosis is challenging, as CT appearances may mimic adhesional SBO; therefore, a high index of suspicion and low index to re-operate in this scenario are essential. Finally, this complication can be managed laparoscopically should the patient condition allow it, maintaining the post-operative benefits of minimally invasive surgery

GIANT MENINGOENCEPHALOCELE: A RARE CASE REPORT

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A 6-month-old female infant admitted in neurosurgical ward with c/o swelling over the back of head since birth. o/e swelling was of approx. 15x15 cm, gradually progressive, non-reducible, fluctuant, mildly translucent, cystic in consistency.

MRI - Defect (19mmx18mm) in occipital bone with herniation of posterior fossa containing CSF, meninges s/o meningo-encephalocele (12.5x6.5x10.6 cm).

Excision of cyst with drainage of fluid with primary repair of defect was done. approx. 1 lit of sterile CSF fluid drained. Dead necrotic and rudimentary part of brain and meninges excised. Subperiosteal layer identified and space was created, normal dura identified and sutured bony margin of skull was left as it is, with drain in situ closure was done. Post operatively patient was kept in picu, where she was stable till pod -2, then patient vitals deranged, neural function deranged and patient died on pod-5. It's an abnormal leakage of CSF and herniation of brain tissue and meningeal membranes through a defect in the bony skull. It results from failure of the surface ectoderm to separate from the neuroectoderm which leads to a bony defect in the skull table, which allows leakage of the meninges or brain. Prevalence - 0.8 to 4 /10,000 live births. It is categorized into two types according to the sac's locations: occipital and frontoethmoidal.

PP. 60

ASSESSMENT OF OUTCOME OF DISTAL RADIUS INTRA-ARTICULAR FRACTURES USING WRIST SPANNING MINI-FIXATOR IN DISTRACTION

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Background: Most of the intra-articular distal radius fractures are complex and unstable. Many different methods of treatment have been advocated such as closed reduction maintained by cast, K-wire fixation with cast, ORIF or external fixation.

Aim: To assess the success rate following the treatment of comminuted intra-articular fractures of the distal radius via closed reduction and use of a mini-external fixator.

Methodology: 10 patients with distal end intra-articular radius fractures coming to our institute from January 2021 to August 2021 were treated with wrist spanning mini external fixator. Patient was evaluated at 6 weeks and 3 months using mayo wrist score. External fixator was removed after 6-8 weeks after the fracture showed signs of consolidation.

Result: Out of 10, 3 patients required additional k wire fixation. At the end of three months excellent results were seen in 2 patients, good results were seen in 6 patients, and fair in 2 patients. The patient's wrist range of motion gradually increased at consecutive clinical evaluations.

Conclusion: Wrist spanning mini external fixator is a promising modality for surgical fixation of intraarticular fractures of lower end radius. It allows anatomical reconstruction of the articular surface, stable fixation of fracture fragments, and care of soft tissue injuries, without a high rate of complications.

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CLINICAL OUTCOMES OF SELECTIVE NERVE ROOT BLOCK IN PATIENTS WITH LUMBAR DISC HERNIATION

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Background: Use of Selective Nerve Root Block (SNRB) in lumbar region to relieve radicular pain along the course of a particular nerve is being practiced in the recent past.

Aim: To study the clinical outcomes of selective nerve root block in patients with acute lumbar disc herniation at 6 months follow up.

Methodology: 50 patients with various grades of lumbar disc herniation affecting a particular lumbar nerve root presenting with acute radicular pain, without neurological deficit, were identified. All patients were injected with a combination of 40 mg of Methylprednisolone and local anaesthesia over the affected nerve root at the subpedicular space.

Results: A total of 50 patients, 32 males and 18 females, underwent SNRB. 41 patients had symptomatic relief at 3 weeks and 31 patients had symptomatic relief at 6 months follow up. 19 patients experienced a recurrence of symptoms, out of which 8 required surgery.

Conclusion: Effect of SNRB is typically short acting, but provide long term symptomatic relief in majority of the patients due to natural history of acute lumbar disc herniation. It creates a window period with reduced pain but varied intervals depending on the pathology. It did not alter prognosis in those with severe disease where surgery is indicated.

**FUNCTIONAL OUTCOME OF CHONDROBLASTOMA OF PROXIMAL
TIBIA TREATED WITH CURETTAGE AND BONE GRAFT**

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Background: Chondroblastoma is a rare cartilaginous benign bone tumor. Surgical management is the primary treatment of choice for chondroblastoma and it includes intralesional tumor curettage, additional burring, and packing of the defect with bone graft and/or bone cement. Chondroblastoma has a predilection for the epiphyses or apophyses of long tubular bones. Management of lesions in the proximal tibia is challenging because it is difficult to gain access to intraepiphyseal lesions for completion of curettage. We present a case report - chondroblastoma of proximal tibia, treated with curettage and bone grafting.

Case Report: An 18 year old male patient with chondroblastoma of proximal tibia was treated with curettage and bone grafting. He was evaluated post operatively at 6 weeks, 3 months and 6 months. Functional evaluation was performed using the classification system of the International Society of Limb Salvage. Curettage and bone grafting showed excellent functional outcome.

Conclusion: Chondroblastoma of proximal tibia, treated with curettage and bone grafting showed excellent functional outcomes. However, the long-term outcome needs further evaluation.

PROXIMAL FEMORAL NAIL (PFN) AND DYNAMIC HIP SCREW (DHS) IN TREATMENT OF UNSTABLE INTER TROCHANTERIC FRACTURES

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Background: Intertrochanteric fractures (unstable) make up 50% of all hip fractures. These involve cortical and compact cancellous trochanteric bone. We intend to compare outcomes of PFN and DHS for unstable intertrochanteric fractures.

Aim: The aim is to compare outcomes of proximal femoral nail (PFN) and dynamic hip screws (DHS) in treatment of unstable inter trochanteric fractures.

Methodology: 40 patients with unstable intertrochanteric fractures coming to the institute from January to August 2021 were treated with PFN and DHS 20 each. Data were recorded at 6 weeks, 3 months and 6 months.

Result: The results showed that the PFN group had significantly less blood loss as compared to DHS. The observed total duration of surgery is significantly lower in PFN group. No significant differences were found between the 2 groups regarding postoperative infection rate, lag screw cut-out rate, or reoperation rate.

Conclusion: The current evidence indicates that PFN provides better fixation for unstable inter trochanteric fractures, if proper pre-operative planning, good reduction and surgical technique are followed.

CASE STUDY ON RESECTION OF PROXIMAL FEMUR WITH ENDOPROSTHETIC RECONSTRUCTION

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Background: The proximal femur is a common location for bone sarcomas and metastases. Limb salvage surgery is now the preferred treatment and mega prosthesis reconstruction, also known as endoprosthetic reconstruction, is a valuable option after tumour resection with safe margins. Endoprosthetic reconstruction, though a technically demanding procedure, provides immediate stability and quicker rehabilitation.

Aim: To study the benefits of endoprosthetic reconstruction after resection of proximal femur tumour.

Methodology: A 76 years old male patient presented to the Orthopaedics outpatient department with complaints of pain and swelling over left hip since few days and history of fall 4 days back. Clinical and radiological examination revealed a pathological fracture of left sub trochanter femur. After taking consent, he was taken up for resection of proximal femur with endoprosthetic reconstruction. Histopathological examination confirmed the diagnosis of metastatic adenocarcinoma.

Result: Post op, the patient was stable with a healthy suture line and no disruption in his daily activities. He was on regular follow up and we observed rehabilitation of his limb movements.

Conclusion: Megaprosthesis is a beneficial reconstruction option after tumour resection. We believe that the medium to long-term results with these prostheses are encouraging and justify their continued use following the excision of bone tumours.

**EXENTERATION IN PATIENT OF MUCORMYCOSIS:
“THE RUTHLESS GOBLER”**

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Background: Mucormycosis is a fungal mold which has showed a sudden surge in this covid era. The black fungus as it is commonly called colonizes the nose, sinuses, orbit, eye and brain. Delay in diagnosis and appropriate management can have calamitous implications on patient survival. However the intervention time varies depending on various factors like availability of the resources, awareness of patient and expertise available.

Aim: To identify the gamut of red flags of Rhino-Orbital-Cerebral Mucormycosis (ROCM) and take radical decisions to curb the dire consequences.

Methodology: A thorough ophthalmic assessment was done. This disease requires a multidisciplinary approach due to its fulminant nature. Mucormycosis was confirmed by KOH mount and Gadolinium enhanced MRI. In spite of the fact that orbital exenteration is a disfiguring procedure it was performed on our patient and it proved to be life saving. Systemic IV liposomal amphotericin B was also given.

Result & Conclusion: Eyelid sparing orbital exenteration with systemic IV amphotericin B gave rewarding results in our patient of ROCM. Due to its angioinvasive and violent nature it becomes extremely important to intervene in the golden hour i.e. immediately on diagnosis. Delay in diagnosis and appropriate management can have calamitous implications on patient survival and compels the ophthalmologist to do the disfiguring surgery of Exenteration.

A RARE CASE OF SIMULTANEOUS BILATERAL RETROBULBAR OPTIC NEURITIS

Dr Pratiksha Mali

Background: While sequential bilateral optic neuritis has been reported in literature, simultaneous bilateral retrobulbar optic neuritis has not been reported till now.

Case Report: A 16years old female presented after 4 days of sudden onset bilateral diminution of vision which was associated with constant generalized headache. BCVA in RE was CF 1 meter and LE was HM. IOP in BE was 17 mmHg. Cycloplegic refraction BE was -7 Dsph. BE anterior segment (including pupils) and fundus were normal. MRI brain showed BE oedematous and tortuous optic nerve which suggested BE optic neuritis. A diagnosis of simultaneous bilateral retrobulbar optic neuritis was made. Intravenous methyl prednisolone 1g was given daily for 5 days which improved BE BCVA to 6/12 on 5th day. Thereafter oral prednisolone 40 mg was given which was tapered. Myelin Oligodendrocyte Glycoprotein IgG antibody test was returned positive.

Conclusion: Early diagnosis is crucial for management of optic neuritis. Vision can be saved by early diagnosis and prompt intervention.

AN INTERESTING CASE OF EALES DISEASE

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Background: Eales' disease is an idiopathic occlusive vasculitis characterized by three overlapping stages of vasculitis, occlusion of retinal veins and retinal neovascularization which involves mainly mid peripheral retina. It primarily affects the young adults, and most of the time it affects both eyes.

Case Report: A case of 32 year old male presented to eye OPD with sudden painless progressive diminution of vision. There was history of gross diminution of vision in right eye followed by visual recovery after few months. A detailed ophthalmic examination was conducted including BCVA, dilated fundus examination & fundus photography. Various investigations including Mantoux test, USG B-scan, chest x-ray & blood investigations (serum ANA, CRP, TPHA, ESR, CBC, RBS, LFT, RFT, VDRL, RA factor) were done.

BCVA RE-6/60 & LE-HM + PL+, both eye pupillary reaction was ill sustained. B/L extraocular movements were full in all gazes. On fundus examination sheathing around retinal blood vessels, peripheral neovascularization of retina and tractional band with retinal detachment were found while LE was having red glow of vitreous haemorrhage no positive sign of active tuberculosis found. USG B-scan depicts RE-retinal detachment & LE-vitreous haemorrhage and retinal detachment. All investigations were within normal limits. Oral steroid and anti-tubercular treatment was given.

Conclusion: Eales disease is an idiopathic peripheral obliterative vasculitis which significantly affects the retina of young adults but diagnosing it timely to save the vision.

**SUCCESSFUL MANAGEMENT OF LAPAROTOMY FOR PERFORATION
PERITONITIS WITH ONGOING MI (EF 20%)**

Dr Deva Rajendran

Background: Perioperative Myocardial infarction is an emergency anaesthetic crisis which requires prompt and accurate management to prevent further complications or patient death.

Case Report: Here we are presenting anaesthetic management of exploratory laparotomy under GA for a case of 41 year old patient of peptic ulcer perforation with peritonitis in ongoing MI. ECG showed ST elevation in Lead II and V1-V4 and ECHO findings showed EF-20%, RWMA+Global hypokinesia. Cardiologist advice was to operate the patient first under high risk as any interventional procedure before can put the patient on anticoagulants and surgery would have been riskier. Anaesthesia was induced and maintained by taking all necessary precaution to avoid tachycardia, sudden increase or decrease in afterload and maintaining the preload under strict noninvasive and invasive monitoring. Procedure was uneventful and patient was shifted to Cardiac ICU for further management and advised for CAG. ST Elevation settled postoperatively but Trop T was positive. Inj Clexane 0.4cc and Noradrenalin infusion was started in ICU. Many cases have been reported where acute abdominal condition like peritonitis, acute appendicitis, pancreatitis etc presented with symptoms and changes in ECG like MI but on further cardiac evaluation by echocardiography and cardiac enzyme testing it came out to be noncardiogenic changes. Such conditions have been termed pseudomyocardial infarction. But in our case ECG changes corroborated with the finding of MI like global hypokinesia and low EF (20%) on echocardiography and elevated cardiac enzymes. Though ECG changes disappeared postoperatively without any cardiac intervention but cardiologist has diagnosed it as MI.

ENDOSCOPIC MANAGEMENT OF DISTAL OESOPHAGEAL TEAR (BOERHAAVE SYNDROME) IN A COMPLICATED CASE UNDER CONSCIOUS SEDATION

Dr Shivani Desai

Case Report: Here we are discussing a case of distal oesophageal tear who first presented with complaint of chest pain followed by diagnosis of one sided hydropneumo thorax and pneumomediastinum. On CT chest and abdomen diagnosis of complete tear of distal oesophageal was made. Endoscopic management was planned under sedation. On examination patient was tachypneic and dyspneic with left sided ICTD in situ. Baseline saturation was 94% on room air and patient was on vasopressor support. Metal stent was placed in lower oesophagus in three different sittings. Every time patient was at high risk of cardiac and respiratory failure. Sedation in such patient could lead to respiratory depression. But the case was managed using conscious sedation where nalbuphine was used in the dose of 0.1mg/kg bolus diluted in 10ml injected slow IV and sedation was maintained with intermittent boluses of ketamine (loading dose 1mg/kg followed by 0.5mg/kg boluses) till the procedure end. Glycopyrrolate and ondansetron was given as premedication and oxygen was supplemented through nasal prongs at 6Lt/min throughout the procedure. Nalbuphine and ketamine combination has been advocated as good agent for conscious sedation with no or minimal effect on respiratory and circulatory parameters. In all the sitting patient and endoscopist were satisfied and vitals were in normal range. Tear was started healing with stent placement and patient was discharged after recovery from respiratory and haemodynamic derangement.

PAEDIATRIC MICROSTOMIA

Dr Sarita Kumawat

Background: Microstomia limits the oral intake of solid foods and often restricts oral intake to liquids and semisolids that can be aspirated by a straw.

Paediatric microstomia may occur congenitally in rare instances but is more often acquired after thermal injury or chemical ingestion and often need surgery correction.

Case Report: We report a case of acquired paediatric microstomia which was planned for elective surgical correction of contractures but thermal burns made conventional, fiberoptic, and blind techniques of tracheal intubation difficult. We describe the anaesthetic management of patient with obliteration of nasal and oral passage, microstomia by blockbuster LMA.

In this patient PAE was normal and patient was induced as per standard paediatric anaesthetic protocols. Due to restricted mouth opening, direct laryngoscopy was tried but was unsuccessful thus patient was intubated using a blockbuster LMA in size 1.5 which was successful in first attempt after manipulation. jR circuit was connected to LMA and ventilation was achieved successfully. After completing the surgery successfully, patient was extubated successfully with no reported postoperative complications.

Conclusion: Blockbuster LMA is a good alternative to Fiber Optic Bronchoscopy in child with acquired microstomia.

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FUNCTIONAL OUTCOME OF OPERATIVE VS CONSERVATIVE MANAGEMENT OF DISPLACED CLAVICLE FRACTURES

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Background: Clavicle fractures account for 5 to 10% of all fractures, amongst which 76-80% fractures occur in the middle third of the clavicle. Clavicle fractures are most commonly treated conservatively.

Aim: To show lower rates of non-union, mal-union and early mobilization in cases of clavicle treated operatively.

Methodology: Data were recorded at 6 weeks, 3 months and 6 months. Final functional outcome was assessed using the Constant-Murley Score.

Results: Surgical fixation of clavicle suggested a relative risk reduction of 86% for non-union compared to conservative management.

Conclusion: Surgical plate fixation of mid shaft clavicular fractures results in improved patient and surgeon oriented outcomes, earlier return of functions and decreased rate of non-union and malunion.