To Compare the Sensitivity of Blood Culture on Day 1, Day 3 & Day 5 in Suspected Neonatal Sepsis

Post Graduate Department of Neonatology and Paediatrics, SKIMS and Department of Microbiology, SKIMS Soura Srinagar, Kashmir

AIMS AND OBJECTIVES:
To compare the sensitivity of blood cultures on Day 1 (24 Hours) Day 3 (72 Hours) & Day 5 (120 Hours) in suspected neonatal sepsis.

MATERIALS AND METHODS:
The study was a hospital based observational study conducted in the neonatal ICU, Dept. of Pediatrics and Deptt. Of Microbiology, SKIMS, Srinagar. All the confirmed culture proven cases of neonatal sepsis from 1st January 2016 to 1st June 2017, were included in the study. All those neonates with features of sepsis like lethargy, refusal of feeds, irritability, fever, seizure and deranged lab values like CRP, Procalcitonin, and CBC were considered in study. Before drawing blood culture samples, neonates already on antibiotics were excluded from the study. In addition, participants with incomplete details were also excluded from the study.

RESULTS:
In our study a total of 85 culture positive neonatal sepsis cases were recruited. Out of them 64 (75.3%) were positive within 24 hours of incubation (subsequently referred to as culture positive on day 1), 17 (20.0%) were culture positive on day 3 (within 72 hours of incubation, but not within 24 hours) and 4 (4.7%) were culture positive on day 5 (within 120 hours of incubation but not within 72 hours of incubation).

CONCLUSION:
We recommend incubating cultures for 5 days to pick up additional 5% cases of neonatal sepsis.

Pattern of Urinary Tract Infection in Post-Renal Transplants, Hits and Misses

Department of Medicine (Infectious Diseases), Nephrology and Urology, SKIMS, Soura Srinagar, Kashmir

BACKGROUND: Kidneys are the most frequently transplanted organs and renal transplantation is the preferred method for treating patients with CKD and post-transplant UTI is still a source of morbidity and graft failure.

METHODS: This prospective study was conducted from August 2016 to February 2018.
A total of 35 renal transplant recipients were included in the study.

**RESULTS:** The most common symptoms associated with the infection was dysuria (71%). Only 66% of the cases were febrile on presentation or had a mounted fever spike during the hospital course. Almost 17% of the cases presented with Shock. Urine culture was positive in 23 cases (65%), with bacteria in 34(96%) and fungus in 1(4%). Predominant bacteria grown from cultures were Klebsiella-pneumoniae in 32 %, Pseudomonas-aeruginosa in 18 %, E. Coli in 14 %, Entercoccus-faecalis in 13 %, Acinetobacter in 10 %, Staph. aureus in 9 % and Enterobacter in 4% cases. Antibiotic resistance profiles showed a high resistance patterns to ceftrixaone 60%, levofloxacin 53%, Nitrofurantoin 53%, ciprofloxacine 40%, cotrimoxazole 40%, piperacillin-tazobactum 26%, amikacin 26%, gentamicin 26%, meropenem 26% and imipenem 13%. Patients were followed over a period of four weeks. At 2nd week follow-up, 2 cases (5%) were still culture positive and symptoms of UTI persisted in 6 cases (17%). Out of 35, 25 cases were followed till 4th week. 6 (24%) case had a positive culture and symptoms persisted in 10 cases (40%). In recurrent infections, Relapse was seen in three i.e. 50 percent and Reinfections in another three i.e. 50 percent.

**CONCLUSION:** In these high risk patients, antibiotic selection, duration and stewardship need to be readdressed. Microbial profile and sentivity patterns in these patients are different from usual UTIs.

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**Subclinical Atherosclerosis in Patients with Chronic Obstructive Lung Disease**

PG Department of General Medicine SKIMS MC Srinagar and Department of Radio-diagnosis and imaging, SKIMS, Soura Srinagar, Kashmir

**ABSTRACT**

**AIMS AND OBJECTIVES:** To evaluate possible relationship between Subclinical Atherosclerosis in Smokers with Airflow Limitation and to correlate the severity of COPD with Subclinical Athemiasclerosis.

**METHODS:** The study was conducted at SKIMS/SKIMS MCH from June 2015 to May 2017 and total number of 241 patients were studied who were normotensive, non-diabetic and had a normal lipid profile. Study population was randomised into three groups. Group 1 - Smokers with COPD, Group 2 - Smokers with normal PFT and Group 3 - Healthy non-smokers. Pulmonary function tests and carotid Doppler was performed in all the patients included in the study group, to look for carotid intimal medial thickness and carotid plaques.

**RESULTS:** The study revealed increased carotid intimal medial thickness in 56% of COPD patients as compared to 26.3% in control smokers and 5.6% in non-smokers. Mean
Carotid intimal medial thickness (CIMT) was higher in COPD patients as compared to the other two groups. The prevalence of carotid plaques was significantly high in COPD patients as compared to healthy smokers and healthy volunteers. The study also reported increasing CIMT and Carotid plaques with increasing severity of COPD. Study revealed that smokers with normal PFT had higher CIMT as compared to non-smokers.

**CONCLUSIONS:** COPD patients have an accentuated atherosclerosis as indicated by increased CIMT and carotid plaques. Severity of airflow limitation is directly proportional to intimal medial thickness (IMT) and atherosclerosis. CIMT measured by carotid doppler is an important surrogate marker for atherosclerosis. Surprisingly smoking is an independent risk factor for atherosclerosis.

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**Epidemiology of Pseudoexfoliation Syndrome-A Hospital Based Comparative Study**

Department of Ophthalmology SKIMS-MCH

**ABSTRACT**

**AIMS AND OBJECTIVES:** To study the epidemiology of pseudoexfoliation in patients attending post graduate department of ophthalmology SKIMS-MCH Bemina Srinagar and to identify the risk factors for pseudoexfoliation.

**METHODS:** The study was a hospital based comparative clinical study with 100 consecutive patients with pseudoexfoliation and age and sex matched 100 patients as control without pseudoexfoliation. The patients were registered on a Pre-structured Proforma which included patients’ demographic detail, history and examination. Examination protocol included visual acuity with Snellen’s chart for literate patients and E-Chart for illiterate patients, intraocular pressure (by Goldmann applanation tonometry), slit lamp examination and fundus examination.

**RESULTS:** The mean age of cases was 65.93± 7.82 years ranging from 49 to 85 years. The mean age of controls was 63.98± 7.06 years ranging from 50 to 80 years (p=0.139). 72% of cases were more than 60 years old. Male female ratio was 1.63:1. Most of the cases were from Budgam, Bandipora and Ganderbal areas. Spring water was proportionately more frequently used as source of water in cases ($\chi^2 = 18.5$, p=0.000), and tube well water in controls. The mean duration of smoking was 26.63±24.74 pack years for cases and 14.88±17.10 pack years for controls (p=0.000). Average duration of daytime exposure for cases was 6.68±2.13 hours and for controls it was 4.52±2.53 hours. Among cases 12 patients (12%) were on treatment for glaucoma whereas among controls, 1 patient (1%) was on treatment for glaucoma. With respect to dietary habits, there was no difference between cases and controls. Farmers comprised of 49% of cases, followed by Housewives and government employees.
CONCLUSIONS: The study concludes that PEX is very common in our region, increasing with age and more in men. Smoking, occupations involved with sunlight exposure, spring water as water source are possible risk factors for PEX. Glaucoma and cataract are common ocular complications of the syndrome.

Correlation between Clinical Findings and Fundus Fluorescein Angiography Findings in Patients with Pre-proliferative Diabetic Retinopathy

Department of Ophthalmology, SKIMS medical college and hospital Bemina Srinagar

A B S T R A C T

AIMS AND OBJECTIVES: To find the correlation between clinical and fundus fluorescein findings in patients with pre-proliferative diabetic retinopathy, to identify subtle areas of ischemia and extent of capillary non perfusion, not visible clinically and to differentiate intra-retinal microvascular abnormalities from neovascularisation.

METHODS: The present study was a hospital based prospective study conducted from November 2015 to April 2017 in the department of Ophthalmology SKIMS Medical College Hospital, Srinagar. Patients older than 12 years of age suffering from Diabetes Mellitus with clinical findings consistent with pre-proliferative diabetic retinopathy were included for the purpose of the study. FFA was done using Carl Ziess Meditec Angiograph.

RESULTS: A total of 76 eyes of 38 patients having pre-proliferative diabetic retinopathy (PPDR) clinically were included for the purpose of study. Mean age of the patients was 52.34 years with a SD of 11.17 years (ranging from 21 to 78 years). There were 16 (42%) males and 22 (58%) females. The duration of diabetes ranged from 4 to 22 years with a mean duration of 9.63 ± 4.56 years. Clinically, all three stages of pre-proliferative diabetic retinopathy were seen in the 76 eyes of 38 patients. Mild non-proliferative diabetic retinopathy were seen in the 76 eyes of 38 patients. Mild non-proliferative diabetic retinopathy (NPDR) was present in 29 eyes, moderate NPDR in 35 eyes and severe NPDR in 12 eyes. On FFA, 6 eyes (8%) were found to have PDR with one patient having bilateral PDR and 4 patients having unilateral PDR. In the rest of 70 eyes having PPDR, the most common angiographic finding was areas of capillary non-perfusion (CNP areas) seen in 17 eyes (24%). IRMA and areas of capillary nonperfusion together were seen in 13 eyes (19%). NVE was seen 6 eyes proving them to have PDR.

CONCLUSION: In our study FFA proved to be an important tool to evaluate the lesions of PPDR, which were not detectable on ophthalmoscopy and slit lamp biomicroscopy, such as areas of capillary non-perfusion. IRMA were also best picked up and differentiated from neovascularisation by means of FFA.
Comparison of Cost Effectiveness and Left Ventricular Mechanics after Percutaneous and Surgical Closure of Patent Ductus Arteriosus

AIMS AND OBJECTIVES: To compare cost effectiveness and assess left ventricular mechanics in patients with patent ductus arteriosus after closure (surgical and percutaneous).

METHODS: The study was conducted between October 2015 to September 2017 and included 50 patients (22 male, 28 females) with average age of 4.37 ± 3.11 years (median 3.9 years). In 25 patients surgical closure and in 25 patients percutaneous device closure of PDA was done.

RESULTS: Left ventricular diastolic and systolic dimensions decreased at 24 h after procedure and gradually achieved a balance in 6 months. Left ventricular ejection fraction and fractional shortening decreased in a short time and recovered to the pre-procedural level in 3 months. The mean measured costs were overall higher in the device closure group than in the open closure group.

CONCLUSIONS: Left ventricular size and function decreased after percutaneous closure. Left ventricular function recovered to pre-procedural level in 3 months, and left ventricular size restored to equilibrium in 6 months after procedure. Although percutaneous device occlusion is as effective as and less invasive than surgical closure for PDA, surgical closure is less costly.

Clinico-Epidemiological Profile of Ovarian Tumors: A Retro-prospective Study at SKIMS, Srinagar

AIMS AND OBJECTIVES: To study the epidemiologic pattern, clinical presentations, pathological characteristics, treatment protocols and chemotherapeutic side effects of ovarian tumors at SKIMS, Srinagar.

METHODS: The study was conducted at the Regional Cancer Centre, SKIMS, Srinagar. All the patients with histologically proven ovarian cancer, registered at this centre (RCC) between January 2008 to December 2016 will be enrolled in the study.
RESULTS: A total of 966 patients were enrolled during 2008 to 2016. The most common age at presentation was 46-60 years with most of the patients in good performance (ECOG 0-2). Out of 966 data was available for 637 cases only. Most of them presented in advanced stages of disease (III and IV). Median OS and PFS were 36 and 20 months respectively.

CONCLUSION: There is an increasing trend in the incidence of ovarian cancers from 2008 to 2016. The mean age of presentation is 45. Ovarian cancers who underwent primary debulking surgery and had residual disease less than 1 cm had good overall survival.

Etiological Profile of Exudative Pleural Effusion

Department of Internal and Pulmonary Medicine and Department of Molecular Medicine and Immunology
SKIMS, Soura, Srinagar

ABSTRACT

AIMS AND OBJECTIVES: To find out the etiology of exudative pleural effusion. Suspected cases of tubercular and malignant pleural effusion to be subjected to pleural biopsy for histopathological confirmation. IFN-Y assay to be done for suspected tubercular pleural effusion.

METHODS: The study was conducted in SKIMS and total of 160 patients were studied. Patients with exudative pleural effusion by Light’s criteria were evaluated by history, physical examination, pleural fluid analysis, radiology, pleuroscopy, biopsy and IFN-Y assay in pleural fluid.

RESULTS: Out of 160 patients 93 (58.1%) were males and 67 (41.9%) were females. Majority of patients were in 41-60 (38.1%) years age group, smokers were 81 (50.6%). Exudative pleural effusion were malignant in 26.25%, para-pneumonic in 25.63%, tubercular in 23.13%, due to empyema in 11.18%, due to pulmonary embolism in 1.25% and unknown in 11.88% patients. Among 20, patients who underwent pleuroscopy 9 were malignant, 6 were tubercular and 5 due to undetermined causes. Mean IFN-Y for TB cases was 906.9 pg/ml (control 217.57 pg/ml). Sensitivity and specificity of IFN-Y in pleural effusion was 91.9 and 70.5 respectively with the best cut off at 33.02 pg/ml.

CONCLUSION: Most common cause of exudative pleural effusion was malignancy followed by para-pneumonic and tubercular. Pleuroscopy is an essential tool for the patients with undiagnosed exudative pleural effusion. Pleural fluid IFN-Y was significantly higher in patients with tubercular pleural effusion.
Muscle Biopsy as a Diagnostic Aid in Neuromuscular Diseases with Special Reference to Enzyme Histochemistry

Department of Pathology SKIMS Srinagar and Department of Neurology SKIMS, Soura Srinagar

**ABSTRACT**

**AIMS AND OBJECTIVES:** To study the pathological changes in muscle biopsy in the diagnosis of various neuromuscular diseases and to study the spectrum of various neuromuscular lesions diagnosed on muscle biopsy using conventional H & E stain, special stains and enzyme histochemistry.

**METHODS:** Clinical features of all the cases were recorded, the site of biopsy, the type of biopsy, and all the relevant clinical details as per the porforma were recorded. The specimen was bisected along its longitudinal axis so that several pieces about 0.3 cm × 0.5 cm were obtained. The biopsy tissue was divided into two pieces: A part of biopsy was used for routine processing after fixing in buffered formalin. For cryosections, biopsy piece was fresh frozen in isopentane cooled in liquid nitrogen (-170°c to -180°c) and then sections were cut at cryostat at -18°c to -20°c.

**RESULTS:** Out of the 32 muscle biopsies, 31.3% were reported as inflammatory myopathies which was the most common histopathological diagnosis made, followed by Vasculitis which was seen in 21.9% subjects. The other histopathological diagnoses made were muscular dystrophy in 15.6%, mitochondrial myopathy in 6.2%, eosinophilic myositis in 3.1% & undifferentiated myopathies in 12.5% cases.

**CONCLUSION:** Inflammatory myopathy was the most common histopathological diagnosis made, followed by Vasculitis. Muscle biopsy has limited utility in cases of Muscular dystrophy which require IHC & immune-blotting for its definitive diagnosis.

Clinical Profile of Haemorrhagic Stroke and Validation of ICH Score in Kashmiri Population

Department of Neurology SKIMS, Soura, Srinagar

**ABSTRACT**

**BACKGROUND:** Intracerebral hemorrhage is the second most common subtype of stroke after ischemic stroke and accounts for approximately 10% to 20% of all strokes worldwide. In contrast, hemorrhagic stroke in our Kashmir valley accounts for around 65%.

**OBJECTIVE:** To look for detailed clinical profile and 30 day mortality, and correlate with ICH score, in our population.
STUDY DESIGN AND METHODS: In this hospital based prospective study, all patients of spontaneous intracerebral hemorrhage admitted over a period of 2 years were enrolled. All clinical and lab parameters were recorded. ICH score (which includes Age, GCS, ICH volume, ICH location, and Intraventricular hemorrhage) was calculated at initial assessment. Patients were followed for 1 month to look for 30 day mortality and correlate with ICH score.

OBSERVATIONS: Intracerebral hemorrhage constituted 51% of stroke patients after excluding SAH. Mean age of patients was 61.66±12.57 years. There was male preponderence (64%). Major risk factors present include Hypertension (96%), smoking (47%), DM (10.1%), previous stroke (11.3%), Family history (29.2%) and Anticoagulant use (0.85%). Most common site involved was Putamen (46.5%) followed by thalamus (27.8%) and lobar hemorrhage (14.6%). Around 65% patients developed systemic complications including Electrolyte disturbances and infections. Mortality at 30 days in our study was 36.2%. Thirty-day mortality rates for patients with ICH Scores of 0, 1, 2, 3, 4, 5 were 0.7%, 4.5%, 17.3%, 62.0%, 94.6% and 100.0% respectively. Plotting ICH score ROC curves demonstrated an area under the curve of 0.896, compared to 0.92 for the original ICH score cohort.

CONCLUSION: Hemorrhagic stroke is still predominant stroke type in kashmir valley. ICH score is an accurate marker to predict 30 day mortality in our population.

To Compare the Efficacy of Injection Adrenaline Plus Argon Plasma Coagulation (APS) Vs Injection Adrenaline Plus Heater Probe Coagulation (HPS) in Non Variceal Upper Gastrointestinal Bleeding-Randomized Double Blind Study

ABSTRACT

AIMS AND OBJECTIVES: To compare the efficacy of injection adrenaline plus argon plasma coagulation (APC) vs Injection adrenaline plus heater probe coagulation (HPC) in non variceal upper gastrointestinal bleeding.

METHODS: This study was conducted in the department of Gastroenterology SKIMS. A total of 115 patients with duodenal or gastric ulcers were enrolled. The patients were randomized into two groups, Group A and Group B. Group A received Injection adrenaline plus heater probe coagulation and Group B received Injection adrenaline plus Argon plasma coagulation. Randomization resulted in 59 patients in Group A and 56 patients in Group B. The patients in both groups were observed for 72 hours in the hospital for any rebleed achieving initial hemostasis.
RESULTS: Age of the patients ranged from <30 to >60 with mean of 44.9±13.89 in Group A and 48.4±15.15 in Group B. There were 49 males and 8 females in Group A and 46 males and 8 females in Group B. Among Group A patients, 57 out of 59 (96.6%) achieved hemostasis and among Group B, 54 out of 56(96.4%) achieved initial hemostasis. In Group A patients, 4 (7%) patients had rebleeding in the form of hematemesis, melena or both. In Group B patients, 1 (1.9%) patient had rebleeding in the form of melena.

CONCLUSION: There was no significant difference between injection adrenaline plus heater probe coagulation and injection adrenaline plus argon plasma coagulation in achieving hemostasis and preventing rebleed during endoscopy treatment in non variceal upper GI bleeding.

Role of Simethicone and N-acetylcysteine as Premedication in Improving Visibility During Esophagogastroduodenoscopy—Randomized Double Blinded Placebo Controlled Study

Department of Neurology SKIMS, Soura, Srinagar

A B S T R A C T

AIMS AND OBJECTIVES: To determine whether premedication with Simethicone or N-acetylcysteine improves mucosal visibility during upper endoscopy.

METHODS: A total of 2234 patients were included in the study and were randomized into three groups A, B and C. Group A (Placebo) received 100 ml of water, Group B received 100 mg Simethicone in 100 ml of water and Group C received 600 mg N-acetylcysteine in 100 ml of water. The Gastric mucosal visibility was assessed by esophagogastroduodenoscopy. The mucosal visibility score was calculated at four different sites of stomach which included: Gastric antrum, upper part of gastric curvature, lower part of gastric curvature, gastric fundus. Scoring 1 to 4 was calculated at 4 sites. Score 1 signifies clear mucosa and score 4 signifies frothy mucosa.

RESULTS: Group A included 832 patients, Group B included 708 patients and Group C included 694 patients. The mean age of the population was (44.5+-16.02), there were 1161 (51.97%) males and 1073 (48.03%) females. The mean TMVS score was 9.49 in Group A, 5.27 in Group B and 7.43 in Group C. TMVS had inverse relation with the mucosal visibility. Therefore premedication with Simethicone and N-acetylcysteine enhanced the mucosal visibility upon esophagogastroduodenoscopy. Simethicone was the best in enhancing mucosal visibility among all the three groups.

CONCLUSION: Our study concluded that using premedication enhances the mucosal visibility in esophagogastroduodenoscopy.
Diabetic Foot: Clinical Presentation, Surgical Management and Amputation Rate: A Prospective Study

Department of Plastic and Reconstructive Surgery, SIKMS, Soura, Srinagar

**ABSTRACT**

**BACKGROUND:** Diabetes mellitus has become an epidemic worldwide. It was estimated in 2000 that there were 32 million people with diabetes in India, a number that is predicted to increase to nearly 80 million by 2030. Among the various complications of diabetes mellitus lower extremity complication i.e, diabetic foot ulcer is a major cause of morbidity and lower extremity amputation. Diabetic patients have up to 25% life time risk of developing a foot ulcer. Diabetic ulceration have been shown to proceed amputation in up to 85% of cases. Diabetic foot complications are the most common cause of non-traumatic lower extremity amputation in the industrialized world.

**AIMS AND OBJECTIVES:**

To study the overall clinical presentation of diabetic foot ulcer especially the various patterns in which a diabetic foot ulcer presents. To study the various surgical procedures viz; debridement, drainage of abscess, reconstruction, amputation done in these patients. To study the amputation rate in patients with diabetic foot ulcer in our centre.

**METHODS:** This Prospective study was conducted in the Department of Plastic and Reconstructive Surgery SKIMS. A total of 150 patients having diabetic foot ulcer were included in the study from Nov 2015- June 2017. All patients with diabetic foot ulcer were included in the study. A detailed foot examination was performed and ulcers were classified according to Wegener’s classification. Surgical procedures done in patients included drainage of abscess, debridement, skin grafting/ flap cover and amputations.

**RESULTS:** 32 patients were managed conservatively. Debridement with drainage of abscess was done in 35 patients. Debridement with regular dressings were done in 15 patients. Debridement with STSG and flap cover was done in 15 and 3 patients respectively. Amputation rate in this study was 33.33%, of which 12% constituted major and 21.33% constituted minor amputations. Out of 50 amputations, 29 were performed on right side and 21 on left side.

**CONCLUSION:** A multidisciplinary team approach targeting at good glycaemic control, education on foot care, control of infection and early surgical intervention is required in order to reduce morbidity and mortality associated with diabetic foot ulcer.
Early Left Ventricular Remodelling after Aortic Valve Replacement

Department of Cardiovascular and Thoracic Surgery, and Department of Cardiology, SKIMS, Srinagar

ABSTRACT

BACKGROUND: Aortic valve disease is associated with eccentric or concentric left ventricular (LV) hypertrophy and changes in the LV mass. The relationship between LV mass and function and the effect of LV remodelling after aortic valve replacement (AVR), in patients with aortic valve disease needs evaluation that is largely unknown in our population.

AIMS AND OBJECTIVES: The aim of this study was to evaluate the effect of AVR on LV remodelling, in patients with aortic valve disease.

METHODS: Fifty patients with aortic valve disease were studied using transthoracic echocardiography to assess LV mass before AVR and compared with early postoperative changes in the LV dimensions and function. LV mass was studied preoperatively and before discharge in 50 consecutive patients undergoing isolated aortic valve replacement.

RESULTS: Out of fifty patients, 32 were male and 18 were female. Mean age of the patients was 42.42 years. LV mass regression was studied in all the patients. Mean left ventricular mass (LVM) in the preoperative period showed decreasing trend after aortic valve replacement. Echocardiography done 1 week after aortic valve replacement followed by at 3 months and finally at 6 months follow up. The left ventricular mass showed a statistically significant decrease in post operative period.

CONCLUSION: There was significant early LV mass regression after aortic valve replacement in patients with pre-existing aortic valve disease. However, it was noticed that patients most likely to achieve favourable remodelling were those who did not exhibit preoperative changes consistent with long standing disease.

Clinical Profile of Systemic Lupus Erythematosus Patients at a Tertiary Care Center in North India

Department of Internal Medicine, Division Rheumatology and Department of Nephrology, SKIMS, Srinagar.

ABSTRACT

BACKGROUND: Systemic lupus erythematosus (SLE) is a multisystem autoimmune disease caused by an aberrant immune response, with prevalence ranging from 20-150 cases per 100,000 population.
AIMS & OBJECTIVES: To study the clinical and immunological profile of systemic lupus erythematosus, with respect to national and international series.

METHODS: It was a hospital based observational study conducted in the department of internal medicine and department of nephrology Skims Srinagar. Records of SLE patients admitted or evaluated in OPD from March 2010 to June 2017 were retrieved from Medical record and Rheumatology department records and studied. Two hundred and sixty nine SLE patients were enrolled for the analysis. The Criteria for classification of the SLE were based on the American College of Rheumatology (ACR) classification criteria and the Systemic Lupus Erythematosus Collaborating Clinic (SLICC) criteria.

RESULTS: Among 269 SLE patients 96.7% and 92.3% fulfilled SLICC and ACR criteria respectively. Majority patients were females (96%) , 93% in the reproductive age group with mean age30.1±10.06 years. The major organ system involved were mucocutaneous system (88.5%) followed by musculoskeletal (82.9%); Gastrointestinal (35.7%); Pleuro-pulmonary (33.8%); Neuropsychiatric SLE (31.6%) systems, and lupus nephritis 26.8%. Haematological manifestations were most common (78.1%), with anemia in 43.5% followed by lymphopenia (36.3%), thrombocytopenia (35.6%) and leucopenia (29.7%). Secondary APLA syndrome was present in 18.2% patients. 96.6% patients were ANA positive and 3.4% were ANA negative. Anti dsDNA was positive in 63.1%, anti smith in 17.7%; C3 was low in 39.5% and C4 in 43.7% and APLA profile was positive in 33.8%. 27.8% had severe flare.

CONCLUSION: 27.8% SLE patients present with severe flare. Mucocutaneous, musculoskeletal, gastrointestinal, Pleuro-pulmonary, nervous and renal system were predominant systems affected.

CSF Neurofilament-H Levels as a Potential Prognostic Marker in Patients of Gullain Barre Syndrome

Department of Neurology and Department of Immunology & Molecular Medicine, SKIMS, Sours, Srinagar

ABSTRACT

AIMS AND OBJECTIVES: To study if CSF phosphorylated neurofilament H (pNf-H) levels during the acute phase of GBS can act as a prognostic marker at six months follow up.

METHODS: The hospital based prospective study was conducted at SKIMS, Sours over a period of two years. 62 patients who fulfilled the published diagnostic criteria for GBS and presented within the first 2 weeks of onset of symptoms were included in this study. The control group consisted of age and gender matched 35 patients with tension-type headache in whom no other neurological pathology was found. CSF levels of pNf-H were measured using a sandwich enzyme immunoassay.
The outcome was assessed using the Hughes functional grading scale (F-score). Outcome was classified as “poor” if F-score was ≥3 and “good” if F-score was <3.

RESULTS: In our study 49 (79%) patients had a good outcome, whereas 13 (21%) patients had a poor outcome at six months follow up. The mean CSF pNf-H level in patients with good outcome was 325.3 pg/ml whereas the mean level in patients with poor outcome was 3655.2 pg/ml. There was a high degree of positive correlation between CSF Nf-H levels and clinical outcome (F-score) at 6 months (R=0.684; P-value<0.001). Pathological levels of Nf-H (>730pg/ml) measured in the CSF sample predicted poor outcome (P value < 0.001), with an odds ratio of 17.1 (95% confidence interval [CI] 3.83 76.29).

CONCLUSION: This study provides evidence that high CSF pNf-H levels in acute stage of GBS can act as a prognostic marker, with high levels indicating a poor prognosis.

Profile of Acromegaly Patients at SKIMS

Department of Internal Medicine and Department of Endocrinology, SKIMS, Soura, Srinagar

A B S T R A C T

AIMS AND OBJECTIVES: To study the clinical profile of patients with acromegaly for assessing the state of the care for these patients in the valley.

METHODS: Fifty one old and new patients with acromegaly seen at our hospital between July 2015 and April 2017 were studied. The clinical presentations of the disease and its various manifestations such as hypertension, diabetes, dyslipidemia, cutaneous, visual, reproductive, musculoskeletal manifestations were noted. Specific investigations included evaluation of glucose tolerance (OGTT), GH suppression test, echocardiography and colonoscopy. Patients received surgical, medical or radiation treatments alone or in combination, whose effectiveness was evaluated.

RESULTS: Fifty one patients (27 males and 24 females) with a mean age of 42.3 ± 10.87 years (range 22 to 70 years) were included. Acral enlargement(90.2%), headache (70.6%) and facial coarsening (64.7%) were the commonest presenting features. Hypertension was seen in 45.1%, respiratory manifestations in 13.7%, musculoskeletal complaints in 37%, cutaneous abnormalities in 33.3%, visual disturbances in 25.4%, reproductive manifestations in 27.4%, LVH in 29.4%, visceromegaly in 19.6%, diastolic dysfunction in 6.9%, and diabetes mellitus in 25.5% of patients. Pretreatment MRI revealed microadenoma in 20.4% and macroadenoma in 79.6%. Primary modality of treatment was surgery (TNTS) in 84.3% patients, primary medical treatment in 5.9%,
combined surgical, radiotherapy and medical in 4% of patients. Post-treatment residual or recurrent disease was present in 55.8% patients for which 25% patients were re-operated, 25% received radiotherapy and 50% received medical treatment. The mean GH levels before treatment were 26.7 ± 19.3 ng/ml which reduced to 6.45± 7.76 ng/ml post-treatment.

CONCLUSION: Results of the study were largely comparable to other studies, barring very infrequent use of medical treatment in our patients.

Acute Kidney Injury Following Percutaneous Coronary Intervention

Department of Cardiology, SKIMS, Soura, Srinagar

ABSTRACT

BACKGROUND: Coronary heart disease is one of the leading causes of death worldwide and remains a substantial contributor to morbidity, mortality and healthcare expenditure. The treatment of choice for patients with CAD is revascularization using PCI. Despite advances in preventive measures, CIN is the third leading cause of AKI and is associated with higher rates of morbidity and mortality in hospitalized patients.

AIMS AND OBJECTIVES: The study was aimed to determine the incidence, evaluate the risk factors and to analyze the outcome including mortality, need of dialysis and impact on length of hospital stay of AKI after PCI.

METHODS: 500 patients who were admitted with chronic stable angina and acute coronary syndrome for PCI were included in present prospective study.

RESULTS: In our study, 52 (10.4%) patients developed AKI. Majority of patients i.e. 42.4% were aged between 60-69 years. Diabetes mellitus, heart failure, PVD, hypotension, creatinine, contrast volume, eGFR and procedure time were significantly associated with development of AKI. The mean hospital stay of AKI group was longer than that of normal group (9.2±2.73 vs 4.7±1.79, P<0.001). In our study, 3 (5.8%) patients of AKI group whereas 2 (0.4%) patients of no AKI group died with p value of 0.004.

CONCLUSION: CI-AKI is a prevalent but underdiagnosed complication of PCI that is associated with increased in-hospital morbidity and mortality.
Prevalence of Maturity Onset Diabetes of the Young (MODY) among People with Diabetes Attending a Tertiary Care Centre

Department of Endocrinology, Department of immunology & Molecular Medicine Skims Srinagar, and Department of Biochemistry, Kashmir University, Hazratbal Srinagar

ABSTRACT

BACKGROUND: Maturity onset diabetes of young (MODY) is monogenic disorder caused by defective β cell function. It is considered to be the most underdiagnosed (upto 80% of cases) condition.

AIMS AND OBJECTIVES: To determine the prevalence of MODY among diabetic patients attending Endocrinology Department at SKIMS Soura and to study the clinical profile of MODY patients attending SKIMS

METHODS: It was a Cross-sectional study including all consenting people with diabetes, with age of onset of diabetes at 35 years or less. Total number of patients included in this study were 858 comprised of 447 (52.1%) of males and 411 (47.9%) female. All patients were screened for MODY using modified clinical criteria (Age at onset <25 years, autosomal dominant inheritance, absence of diabetic ketoacidosis and insulin requirement within the first two years of diagnosis). Patients were subjected to Serum C-Peptide level and anti-GAD65 antibody levels and those with negative GAD65 and positive Cpeptide were subjected to the amino acid polymorphism (SNP) in HNF1α.

RESULTS: The prevalence of MODY among the study cohort as per the criteria defined above was found to be 7.7%. Males constitute the majority of patients (56% vs. 44% Male vs Female; p<0.001). The mean (±SD) age at onset of diabetes was lower in MODY compared to Non MODY patients (14.16±5.61 vs. 23.80±8.71 years; p<0.001) and patients with MODY were younger (17.51±6.76 vs 28.10±9.10 years; p<0.001), leaner (21.01±4.77 vs 23.50±4.96 kg/m2; p<0.001) and had lower frequency of features of insulin resistance in the form of skin tags and acanthosis nigricans. In 40 patients of clinically identified MODY who were subjected to the amino acid polymorphism (SNP) of Ala>Val on codon 98 in HNF1α gene (MODY 3), the mutant genotype was seen in 50% of patients.

CONCLUSION: Our findings indicate the existence of at least some forms of MODY among diabetic patients attending our center that were previously undiagnosed. Recognition of MODY by clinicians is an important step towards proper case identification and management of such patients. A high index of suspicion is required to diagnose cases of MODY as misdiagnosis and inappropriate treatment may have a significant impact on quality of life (QOL) with increased cost and unnecessary treatment with insulin.
Prevalence of vitamin D deficiency in patients with Liver Cirrhosis

Department of Internal Medicine, SIKMS, Soura, Srinagar

ABSTRACT

AIMS AND OBJECTIVES: To determine the prevalence of vitamin D3 level in patients with Cirrhosis, to study the relationship between Etiology of cirrhosis and vitamin D Levels and to study the relationship between severity/grade of cirrhosis and vitamin D levels.

METHODS: This study was conducted in the Department of Gastroenterology, SKIMS, Soura on 150 individuals consisting of 75 cirrhotic patients & 75 controls. Detailed clinical & laboratory evaluation was conducted. Exclusion criteria included patients with comorbidities and patient already on vitamin D3 therapy.

RESULTS: Out of 75 cases 11 had autoimmune liver disease, 9 HEP B, 14 HEP C, 21 NASH, 16 Cryptogenic and Alcoholic 4. Vitamin D deficiency was found in 31 patients, in 30 patients Vitamin D level was insufficient & in rest it was normal which differed significantly from healthy controls. Vitamin D level was 26.12±6.9 in patients with bilirubin level <2 mg/dl, 22.21±3.96 with bilirubin level 2-3 mg/dl and 20.12 ± 6.97 with bilirubin level >3 mg/dl. The mean vitamin D level was 28.1 ± 7.15 with albumin level >3.5 mg/dl, 22.1 ± 4.97 with albumin level 3.0 – 3.5 mg/dl and 17.12 ± 6.21 with albumin level <3.0 mg/dl.

The mean vitamin D level was 24.87±7.12 with INR level <1.7, 20.17±6.13 with INR level 1.7-2.3 and 14.21±5.89 with INR level >2.3. We found low level of vitamin-D associated with leucopenia and leukocytosis as compared to normal TLC count.

CONCLUSIONS: Vitamin D deficiency was more common in males and also a decreasing trend was seen with increasing age with most number of cases ageing between 36-55 years. NASH was found to be the most common cause of CLD in males and in females it was Cryptogenic in origin. MELD score & Child-Pugh score had no statistical relation with vitamin D levels.

Keywords: Liver cirrhosis, Vitamin D, deficiency.
Thyroid Function Test Status in Cardiac Surgical Patients on Cardiopulmonary Bypass and their Correlation with Clinical Outcome

Department of Anesthesiology & Critical Care, and Endocrinology, SKIMS Srinagar

ABSTRACT

BACKGROUND: Thyroid function is depressed during and after cardiopulmonary bypass surgical procedures, and this may adversely affect myocardial performance.

AIMS AND OBJECTIVES: To study the status of thyroid function test in cardiac surgical patients and their correlation with postoperative course and outcome and also to study the relationship between preoperative and postoperative thyroid function tests in patients undergoing cardiac surgery under cardiopulmonary bypass.

METHODS: It was a prospective cohort study and included 151 patients undergoing various cardiac surgeries under cardiopulmonary bypass. Thyroid function test (TSH, TT3 and TT4) was done pre-operatively, on 2nd postoperative day and on 7th postoperative day. The patients were prospectively divided into two groups on the basis of thyroid profile, subjects with normal TSH and those with elevated TSH levels.

RESULTS: There was significant changes in thyroid function in patients on cardiopulmonary bypass. Patients showed a significant decrease in the levels of total T3 and total T4 after surgery which gradually started to normalize after few days of surgery. TSH decreased on the 2nd postoperative day but increased back on Day with levels higher than preoperative values. Patients with elevated TSH had significantly longer aortic cross clamp time, CPB time, longer ICU stay, hospital stay and ventilation time. The number of inotropes and postoperative complications was significantly higher in patients with deranged TFT than in patients with normal TFT.

CONCLUSION: Preoperative thyroid dysfunction may have adverse postoperative outcome in cardiac surgical patients on cardiopulmonary bypass. Postoperative decreases in serum TSH on day 2 generally recovers by day 7; hence thyroid function tests should be properly interpreted in patients undergoing major cardiac surgery.

Ventilator Associated Events Admitted Neurosurgical Patients Admitted ICU

Department of Anaesthesia and critical care, SKIMS Srinagar

ABSTRACT

AIMS AND OBJECTIVES: To study the incidence of VAE (ventilator associated events) in Neurosurgical patients admitted in ICU.

METHODS: It was a prospective observational study and 286 neurosurgical patients admitted to our ICU from August 2016 to February 2017. Out of these only 84 patients...
qualified for inclusion i.e. were mechanically ventilated for more than 48 hours till their transfer out of ICU for the possible development of VAE (VAC, IVAC, PVAP) according to CDC criteria.

RESULTS: Incidence of VAE in our study was 17.8% (15 out of 84 cases). The distribution of VAE in various group is as under: ICSOL - 5 out of 12 i.e. 41.6%, Acute SAH - 2 out of 16 i.e. 12.5%, Spontaneous ICH - 2 out of 13 i.e. 18%, Traumatic ICH - 4 out of 34 i.e. 12%. So overall incidence of VAE in our study in order of incidence was: ICSOL > Spontaneous ICH > Acute SAH > Traumatic ICH. We noted that out of these 84 patients 34 patients had sustained trauma and 50 Patients were not having any such history. The incidence of VAE in traumatic group was 4 out of 34 (11.8%), and 11 out of 50 cases in the non traumatic group (22%). We found that the patients who had trauma had a lower incidence of VAE. The ICU stay ranged from 4 days to 14 days (Range = 10 days) including initial 2 days before qualifying in study with mean stay of around 7.2 days (603/84).

CONCLUSION: The total number of events were 15 for 603 days of MV i.e. 24.9 ((15/603) x 1000) events per 1000 days of MV (mechanical ventilation).

A Prospective Randomised Study to Compare the Efficacy of Clonidine and Dexmedetomidine as Adjuvants to Ropivacaine for Post-operative Epidural Analgesia in Lower Abdominal Surgery

AIMS AND OBJECTIVES: To compare the analgesic efficacy of ropivacaine when used in combination with dexmedetomidine and clonidine for post-operative epidural analgesia in lower abdominal surgeries, to compare the quality and duration of post-operative analgesia, incidence of hemodynamic changes with ropivacaine in lower abdominal surgeries when used in combination with adjuvants (clonidine and dexmedetomidine) through epidural route, to compare the side effect profile of dexmedetomidine and clonidine when used as adjuvants to ropivacaine in epidural analgesia and to determine the need for intravenous rescue analgesia in both groups.

METHODS: After obtaining approval from ethical committee of the institute and informed consent, 80 patients of ASA I and II of either sex, aged 18-65 years scheduled for lower abdominal surgeries were prospectively enrolled for this study. Pre-operative visit was done and procedure explained to patients. Patients were divided into two groups: Group I (40 patients) received 10 ml Ropivacaine 0.2% + clonidine 2mcg/kg. Group II (40 patients) received 10 ml of Ropivacaine 0.2% + dexmedetomidine 1mcg/kg. After administering drugs following parameters were noted. Pain score by using VAS, onset of analgesia, peak level of analgesia, duration of analgesia and Vital parameters- NIBP, pulse rate RR (respiratory rate). Patients were also evaluated for side effects such as nausea,
vomiting, respiratory depression, motor blockade, deep sedation, shivering and hypotension and requirement of IV rescue analgesics.

RESULTS: Patients were comparable with respect to demographic parameters. Onset of analgesia was faster in Ropivacaine + Dexmedetomidine group (RD) compared to ropivacaine clonidine (RC) group. Peak level of analgesia was achieved quickly in RD group compared to RC group. Duration of analgesia was more in RD group compared to RC group. No significant difference in hemodynamic parameters and RR (respiratory rate) and side effect profile between two groups.

CONCLUSION: Our observation allow us to conclude that the epidural route provided adequate analgesia in lower abdominal surgeries in terms of VAS score and overall patient satisfaction. Dexmedetomidine is a better neuraxial adjuvant in comparison to clonidine for providing early onset and prolonged post-operative analgesia and stable cardiorespiratory parameters.

A Prospective Study for Causal Relationship of Growing Pains and Vitamin D

Department of Neonatology and Pediatrics, SKIMS and Department of Immunology and Molecular Medicine SKIMS Srinagar.

ABSTRACT

BACKGROUND: Growing pains (GP) is a well-known clinical entity. The estimated prevalence of growing pains worldwide ranges from 3 to 37%. GP was first described in the medical nomenclature in 1823. After almost two centuries; it is still a poorly understood disease entity. Few studies have been done to elucidate the etiology and pathogenesis of this common syndrome. Recently it was found that vitamin D levels have a relationship with Vitamin D. Very few studies are available which have tried to establish a causal relationship between these two. We used Wong Baker Faces Pain Scale for measuring pain.

AIMS AND OBJECTIVES: Primary objective was to determine the causal relationship between growing pains and vitamin D status. Secondary objectives of finding any relationship of the age, sex, weight, height, BMI, Serum calcium, phosphorous and alkaline phosphates levels with pain severity in these children.

METHODS: The study was a prospective observational study with 92 patients. Pain severity and vitamin D levels were measured at first visit. Those patient who had vitamin D deficiency were given Vitamin D and calcium. Pain severity was measured again at three months and vitamin D levels at one month. The results were compared using statistical analysis.

RESULTS: Severity of Pain at first visit correlated with Vitamin D levels and serum...
Calcium levels. After treatment with Vitamin D patients showed significant improvement in pain and quality of life.

**CONCLUSION:** Monitoring vitamin D levels and, when indicated, supplementing nutritional calcium and oral vitamin D could help to resolve GP. A reduction in pain can lead to an improved quality of life. However in order to establish a definite causal relationship, large sized longitudinal studies are needed.

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**Prevalence of Posterior Pituitary Dysfunction among Traumatic Brain Injury Patients Attending SKIMS**

Department of Endocrinology, Immunology & Mol. Medicine, and Neurosurgery, SKIMS, Saura, Srinagar

**ABSTRACT**

**BACKGROUND:** Traumatic brain injury (TBI) is the leading cause of death and disability in young adults. Disorders of salt and water balance are the most commonly recognized medical complications in the immediate post-TBI period and contribute to the early morbidity and mortality observed in TBI patients. Posterior pituitary function in survivors of TBI remains poorly investigated.

**OBJECTIVES:** To determine the prevalence of posterior pituitary dysfunction in traumatic brain injury patients attending SKIMS Saura; and to determine the natural history of post-traumatic neuro-hypophyseal dysfunction.

**METHODS:** It was a prospective cohort study and include 136 patients of head injury (with radiological evidence of brain injury) admitted to SKIMS. All the patients with head injury admitted to SKIMS were studied for presence of acute posterior pituitary dysfunction (during hospital stay). The severity of brain injury was assessed by GCS and MRS at the time of admission. Total fluid input, urinary output, plasma sodium, serum osmolality, urinary osmolality and urinary sodium (in case of hyponatremia) was monitored in all the patients during the hospital stay. Central diabetes insipidus (CDI) and syndrome of inappropriate secretion of ADH (SIADH) were diagnosed according to standard criteria. Surviving patients underwent evaluation at 3, 6 and 12 months (urinary output and water deprivation test) after injury to determine chronic posterior pituitary dysfunction. The results were compared against normative data obtained from 25 matched, healthy controls.

**RESULTS:** Of 136 patients admitted, 61 had mid head injury (GCS ≤8), 47 had moderate injury (GCS = 9-12), and 27 had severe injury (GCS=13-15). Diabetes insipidus occurred in 10 (7.4%) patients while SIADH was observed in 4 patients in the immediate TBI period. One patient persisted to have diabetes insipidus and another one SIADH at 3
months post TBI. No new case of DI or SIADH occurred on the follow up upto 12 months. Risk factors for diabetes insipidus were GCS of ≤ 8 at admission, midline shift, and surgical intervention. Diabetes insipidus was an independent risk factor for death.

**CONCLUSION:** The incidence of acute diabetes insipidus in severe head injury (GCS ≤ 8) is high. Acute diabetes insipidus is associated with significantly increased mortality.

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**Intranasal Midazolam, Fentanyl and Dexmedetomidine as a Premedication in Pediatric Surgical Patients**

Department of Anaesthesia, Pain and Critical Care. SKIMS Srinagar and Department of Anaesthesia and Critical Care, Hamdard Institute of Medical Sciences and Research (HIMSR), Hamdard Nagar, New Delhi

**ABSTRACT**

**INTRODUCTION:** The preoperative period is a stressful event in paediatric patients. Paediatric premedication provides anxiolysis, facilitates parental separation and lessens adverse psychological effects.

**AIMS AND OBJECTIVES:** To compare midazolam, fentanyl and dexmedetomidine intranasally with regard to sedation and ease of parental separation and postoperative recovery profile. Materials and Method: It was a prospective randomized double study. A total of 150 patients scheduled for elective abdominal surgeries were randomly divided into three groups of 50 each and received the study drugs through LMA-MAD intranasally one hour prior to induction of general anaesthesia. Group-M received midazolam 0.2mg/kg, Group-F received fentanyl 2µg/kg and Group-D received dexmedetomidine 1.5µg/kg. Hemodynamic, Respiratory parameters, sedation score and parental separation and behavior score was analyzed prior to the premedication and then every 15mins for one hour Pre-Induction and Post-Operatively respectively.

**RESULTS:** The HR and MAP was lower in Group-D at all the time intervals while RR and SPO2 was lower in Group-M and Group-F. Overall sedation score, parental separation score and recovery score was better in Group-D.

**CONCLUSION:** Intranasal dexmedetomidine produces significant sedation and better behaviour score at parental separation and anaesthesia induction with no post-operative respiratory depression and better post-operative pain scores.
Preoperative Patient Education and its Impact on Preoperative Anxiety, Response to Extubation Commands and Postoperative Satisfaction

Department of Anaesthesia, Pain and Critical Care. SKIMS, Srinagar and Department of Anaesthesia and Critical Care, Hamdard Institute of Medical Sciences and Research (HIMSR), Hamdard Nagar, New Delhi

**ABSTRACT**

**INTRODUCTION:** Hospitalization and surgery are critical events in the life of any person and can lead to considerable anxiety. The resulting preoperative anxiety can have a major impact on the outcome of anaesthesia and surgery, contributing significantly to the morbidity. Preoperative Patient Education can improve patient outcomes and satisfaction with the surgical process.

**AIMS AND OBJECTIVES:** To assess the impact of preoperative education on preoperative anxiety, response to commands at extubation and postoperative satisfaction in patients undergoing surgeries under general anesthesia.

**METHODS:** It was a prospective single institutional study and included a total of 100 patients, aged 18-65 years with ASA physical status I to III scheduled for elective surgeries under general anesthesia. Patients were randomly divided into 2 groups. Group S received detailed preoperative education in addition to the routine counseling by the anesthetist. Group C received only the routine counseling. Anxiety level in the preoperative period, before and after education using the Amsterdam preoperative anxiety and intervention Scale (APAIS) was compared for both groups. Response of the patient to commands at the time of extubation; extubation quality score (EQS) and postoperative satisfaction of patients (IOWA Satisfaction with Anesthesia Scale) were recorded and statistically analyzed.

**RESULTS:** Patient Education significantly reduced preoperative anxiety and showed better tube tolerance, response to commands at extubation, better quality of extubation and improved postoperative satisfaction.

**CONCLUSION:** Preoperative Patient Education has overall beneficial effects on patient outcomes in the preoperative and postoperative period.

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**Title "Metabolic Syndrome Association in Hypertensive Disorders of Pregnancy in the Kashmiri Women"**

Post Graduate Department of Obstetrics and Gynaecology SKIMS, Soura Srinagar.

**ABSTRACT**

**BACKGROUND:** Preeclampsia is associated with increased morbidity and mortality and it increases with severity of preeclampsia. Preeclampsia shares many characteristics of metabolic syndrome (MeS) which has led many investigators to elucidate this relationship. The aim and objective of this study was to assess the prevalence of MS in
preeclampsia and its relation with its severity

AIMS AND OBJECTIVES; To evaluate the association between metabolic syndrome (using both clinical and laboratory criteria) and preeclampsia and to evaluate the association of metabolic syndrome with severity of preeclampsia.

METHODS: The study included 130 cases 41 gestational hypertension (GHTN), 27 mild preeclampsia (Mild PET), 47 severe preeclampsia (Severe PET), 13 pre-eclampsia superimposed on chronic hypertension (PSHTN) and 2 eclampsia based on pre-specified maternal characteristics according to ACOG criteria after 20th week of gestation. Two hundred normotensive pregnant females served as controls. The frequency of MS was assessed using pregnancy adaptation of MeS definition of the NCEP-ATP III criteria in cases and controls.

RESULTS: Metabolic syndrome was found in 37.7% of preeclampsia group and 12% of control group (p<0.00). Among the components of MeS, preeclampsia group was having significantly higher sugars (30% Vs 20%) and body mass index (BMI) (23.8% Vs 7.5%) than controls. GHTN was seen in 31.5%, mild PET in 20.8%, severe PET in 36.2%, PSHTN in 10% and eclampsia in 1.5% of cases. MeS was seen in 57.4% of severe PET, 50% of eclampsia, 26.8% of GHTN, 25.9% of mild PET and 23.1% of PSHTN. The clinical course in preeclampsia with MeS was complicated by IUD (intrauterine death), IUGR (intrauterine growth retardation), preterm delivery, APH and pulmonary edema. Oligohydromnios was less common in preeclampsia with MeS.

CONCLUSIONS: The frequency of MeS was higher in preeclampsia group as compared to normotensive group. MeS was more significantly higher in patients with severe preeclampsia. In our study there were no demographic, clinical and laboratory predictors of MeS in preeclampsia. On the other hand, preeclampsia patients with MeS had significant materno-foetal complications. There is a need to screen for MeS in pregnant females from the first antenatal visit in order to predict severe preeclampsia.

Transanal Approach for Rectal Tumours: Our Early Experience

Department Of General And Minimal Invasive Surgery, SKIMS, Soura, Srinagar

ABSTRACT

BACKGROUND: Radical surgery for rectal tumours has high morbidity. Local excision of such tumours can be achieved without compromising oncologic safety. Local excision can also be approached using Transanal Minimal Invasive Surgery (TAMIS) using conventional laparoscopic instruments.

AIMS AND OBJECTIVES; To assess the feasibility of local excision including TAMIS procedure in terms of intra operative & postoperative complications, operating time, resection margin positivity, hospital stay and local recurrence rate.
METHODS: A total of 52 patients with rectal tumours (benign or early rectal cancer) located within 4 to 10 cm, occupying <40% of circumference and size < 4 cm, who were subjected to TAMIS, prospectively over a period of 2 years were included in the study which was done at Department of Colorectal Surgery at Sher i Kashmir Institute of Medical Sciences, Srinagar.

RESULTS: TAMIS was performed for 13 patients and Trans-Anal excision was done in 39 patients which were located at an average distance of 6.2 (4-10) cm from anal verge. The mean operating time was 72 (46-110) minutes. There were no intraoperative complications, however 3 (5.76%) patients suffered post-operative bleeding, which was managed conservatively. 1 (1.92%) patient developed acute urinary retention who required indwelling catheterisation. Resection margin was positive in 3 (5.76%) cases, 2 had adenocarcinomas, one of whom underwent TATA resection and other one APR and 1 had villous adenoma, who is on regular follow up. Average hospital stay was 2.7 (2-9) days. Follow up period ranged from 2 to 24 months. Local recurrence occurred in 1 (1.92%) villous adenoma patients (after 11 and 13 months), in whom redo TAMIS was done.

CONCLUSION: TAE and TAMIS are safe and feasible procedure for benign tumours and early rectal cancers, located in low and middle rectum.

Incidence of Rebleeding after Early Versus Delayed Triple Therapy in Upper Gastrointestinal Bleed

AIMS AND OBJECTIVES: To study the incidence of re-bleeding after early vs delayed triple therapy in patients with upper Gastrointestinal bleed.

METHODS: Patients presenting with acute UGI bleed after resuscitation were subjected to upper GI endoscopy. H. pylori was documented by Rapid urease test. After endoscopic treatment of ulcers, patient were divided in 2 groups . Group A who received early triple therapy (Amoxicillin 750mg, Clarithromycin 500mg and Pantoparozole 40mg) within 48-72 hrs and Group B received delayed therapy ,1 week after discharge.

RESULTS: In this prospectve observational study out of total 190 patients ,95 patients were each in Group A and group B. 7 (7.4%) patients had re-bleeding in Group A and 2 (2.1%) patients had re-bleeding in Group B during the follow up period of 1 month.

CONCLUSION: Bleeding was more in the Group A than group B, but this was statistically insignificant (p-0.172).
A Prospective Randomised Study Comparing Billroth II with Roux-en-Y Reconstruction after Radical Distal Gastrectomy for Gastric Cancer

Postgraduate Department of General and Minimal Invasive Surgery

ABSTRACT

AIMS AND OBJECTIVE: To compare Billroth II and Roux-en-Y reconstruction after distal gastrectomy for gastric cancer in terms of peri-operative outcomes and post-operative complications, to study the clinical profile of patients with gastric cancers presenting to the department and to study geographical distribution of gastric cancer in Kashmir valley.

METHODS: 50 patients were enrolled with distal gastric cancer who underwent distal gastrectomy between June, 2015 upto June, 2017 admitted in department of General and Minimal invasive Surgery SKIMS, Srinagar. All patients were subjected to routine and specialised workup and optimised preoperatively before being subjected to planned surgery. Following distal gastrectomy, patients were randomised to restore the continuity of the intestine with the stomach using either of the two procedures, named Roux-en-Y or Billroth II reconstruction. Comparison was done in terms of perioperative outcomes and postoperative complications, in patients undergoing Roux-en-Y and Billroth II reconstruction after distal gastrectomy by undertaking this prospective study.

RESULTS: Maximum preponderance of gastric cancer patients was from southern part of J&K (n=28), with maximum incidence from district Kulgam (n=11). 86% of the patients belonged to rural areas (n=43). Statistically, there was a significant difference in having symptoms of reflux only among the post-operative quality of life parameters, depending on the type of reconstruction—with 22 patients with Billroth II reconstruction having reflux symptoms and only 9 patients with Roux-en-Y reconstruction having symptoms of reflux (p value.

Prevalence, Clinical Profile and Follow Up of Asymptomatic Bacteriuria in Patients with Type 2 Diabetes

Department of Endocrinology and Department of Microbiology, SKIMS, Srinagar

ABSTRACT

BACKGROUND: Patients with diabetes mellitus (DM) have asymptomatic bacteriuria (ASB) more often than those without DM. It is unclear, how the natural history of asymptomatic bacteriuria (ASB) in T2D patients behaves.

OBJECTIVE: To study the prevalence, clinical profile, complications and follow up of ASB in T2D patients.

PATIENTS AND METHODS: This was a hospital based cross sectional prospective study
done on randomly selected 400 T2D patients with no symptoms of UTI and 200 healthy controls having age >30 years. Various clinical, biochemical parameters and urine examination and culture were monitored. All the ASB T2D patients were followed for 6 months with respect to number of UTIs, glycemic control and renal parameters.

RESULTS: The prevalence of ASB at baseline was significantly higher in T2D (17.5%) as compared to controls (10%). E. coli was the most common organism isolated from urine culture from both the groups. T2D ASB positive patients were mostly postmenopausal females, uncontrolled diabetes and long duration of diabetes. Presence of diabetic nephropathy, HTN, CKD, UTI in previous year, uncontrolled BP, obesity, lower eGFR, proteinuria and glycosuria increased the risk of ASB in T2D patients. Of the 64 T2D ASB patients followed till 6 months, 14 (21.8%) developed symptomatic UTI. Postmenopausal state, uncontrolled diabetes, longer diabetes duration, presence of diabetic nephropathy and glycosuria significantly increased the risk of development of symptomatic UTI. ASB in T2D patients who develop UTI leads to worsening of glycemic control with no effect on renal function on follow up.

CONCLUSION: ASB in T2D patients can be consequences of or lead to uncontrolled glycemia. ASB patients who develop UTI leads to worsening of glycemic control but there was no effect on renal function on follow up.

Perioperative Predictors of Mortality and Morbidity in Patients Undergoing Surgery for Intracranial Tumors

Department of Anaesthesiology and critical care, SKIMS, Srinagar

ABSTRACT

BACKGROUND: This study was an attempt to evaluate major intraoperative and postoperative predictors of morbidity and mortality in patients undergoing intracranial tumor surgery which can serve as a guide to alter outcomes in such interventions prospectively.

METHODS: For this study patients undergoing craniotomy for attempted extirpative surgery for intra-axial brain tumors between August 2015 to July 2017 were included. A questionnaire was filled which was based on major perioperative risk factors. Patients were followed up post operatively at regular intervals on daily basis till 30 days postoperatively. Outcomes accessed include mortality, new onset neurodeficits, pneumonia, ventilator dependence and sepsis.

RESULTS: Out of total 200 patients studied, 21 (10.5%) patients expired in our study. New onset neurodeficits was seen in 73 (36.5%) patients, 45 (22.5%) patients needed prolonged ventilation, pneumonia was observed in 37 (18.5%) patients and sepsis was
noted in 59 (29.5%) of patients. Although a few of the known risk factors were found to be significant on univariate analysis on multivariate analysis KPS score (<70) was found to be statistically significant for morbidity. While Age (≥ 65) and KPS Score (<70) were found statistically significant on multivariate for mortality.

CONCLUSIONS: This study revealed importance of Karnofsky score <70 as a significant risk factor which can alter mortality and morbidity within 30 days postoperatively in patients with intracranial tumors. Our study also proved age ≥ 65 had a significant impact on mortality within 30 days postoperatively.

Assessment of Toxicity with Concurrent Chemo-Radiation in Elderly Patients with GIT Malignancy and Development of Algorithmic Guidelines for Predicting Concurrent Chemo-radiation Toxicity in these Patients

Department of Radiation Oncology, Department of Medical Oncology, SKIMS Srinagar

**ABSTRACT**

Aims and Objective: To identify risk factors for concurrent chemo-radiation toxicity in elderly patient of gastrointestinal malignancies & to develop a risk stratification scheme for concurrent chemo-radiation toxicity.

Material: Patients with GIT malignancies and aged ≥ 60 years were enrolled in the study. They were treated with concurrent chemo-radiation and were followed upto 6 month after completion of treatment

Results: 106 patients were divided into 3 sub-groups. 86 patients were in age group of 60-69 years, 18 were in 70-75 years age group, and 2 patients were >75 years. Out of 53 patients of carcinoma esophagus, 16 patients received 5FU/cisplatin with radiation and 37 patients received paclitaxel / carboplatin with radiation. Patients who received 5FU/cisplatin with radiation had severe grade of hematological and non hematological toxicities when compared to patients who received paclitaxel/carboplatin with radiation. However incidence of neuropathy was higher in paclitaxel/carboplatin arm (64.86% Vs 12.5%) but compliance with paclitaxel/carboplatin was better. In 5FU/cisplatin group, Chemoradiation induced toxicities were commonly noticed after first week (31.3%) Where as in Taxane group, these were commonly noticed after 3rd week of treatment (43.2%). 17 patients of carcinoma rectum were enrolled, and were distributed into two chemo-radiation groups. 12 patients (70.58%) in 5FU/leucovorin with radiation group and 5 patients (29.4%) in capecitabine with radiation. Patients who received capecitabine with radiation had more incidence of hand-foot skin reaction (41% Vs 3%) and fatigue (40% Vs 25%). Rest of hematological and non hematological toxicities were comparable. Temporal variation in chemo induced toxicities in 5FU/CLV group were
observed more commonly after first week (41.7%) where as in capcitabine group, toxicities occurred commonly in 2nd (40%)and 3rd week (40%). 36 patients of carcinoma stomach were distributed in three chemo-radiation groups (Paclitaxel/Carboplatin 14 patients, 5FU/CLV -7 patients and Capecitabine- 15 patients). Patients who received paclitaxel/carboplatin with radiation had more incidence of hematological and neurological toxicities when compared to patients who received 5FU/CLV or capcitabine with radiation. However gastrointestinal toxicities were more with capecitabine but compliance was better.

CONCLUSION: As with aging certain common physiologic changes increase the likelihood of toxicity with chemotherapy and radiation, so based on these results, we developed few guidelines to identify those patients who are at greatest risk, by identifying factors like patient age, number of chemotherapy drugs, dosing, radiation dose, dose per fraction, treatment duration and laboratory values.

Intraluminal Brachytherapy Versus Endoscopic Dilatation in Patients of Esophageal Cancer with Recurrent or Residual Disease, Presenting with Dysphagia

Department of Radiation Oncology, Department of Gastroenterology, Department of Radiation Physics & Bioengineering, SKIMS Srinagar.

A B S T R A C T

AIMS AND OBJECTIVES: To compare the outcomes of the intraluminal brachytherapy and endoscopic dilatation in terms of relief of dysphagia and its duration, quality of life, complications and overall survival.

MATERIALS: Patients of esophageal cancer with residual or recurrent disease who presented with dysphagia and underwent either intraluminal brachytherapy or endoscopic dilatation were followed for 6 months to compare the results.

RESULTS: We included 36 patients out of which 20 underwent endoscopic dilatation and 16 received intraluminal brachytherapy. At 1 month following endoscopic dilatation, out of 20 patients only 5 patients had significant relief of dysphagia (grade 0-1). In brachytherapy group 14 out of 16 patients had significant relief of dysphagia (grade 0-1). At the end of two months 5 out of 20 patients in endoscopic dilatation group had grade 0-1 dysphagia and in brachytherapy group 10 patients out of 16 had grade 0-1 dysphagia. At the end of 6 months only 3 patients were on follow up in dilatation group, 1 of them was free of dysphagia and 2 had grade 1 dysphagia. In brachytherapy group out of 6 patients still on follow up, all patients had only grade 0-1 dysphagia. There was a significant improvement in quality of life in brachytherapy group in first few months as seen by EORTC QLQ PAL-15 and EORTC QLQ OES-18 scales. The complication rates in the two
groups were comparable statistically, although two patients developed TOF in brachytherapy group. There was no difference in median survival.

CONCLUSION: Intraluminal brachytherapy provides better, long lasting dysphagia relief as compared to endoscopic dilatation. Complication rates are comparable. Quality of life is also better with brachytherapy.

**Efficacy of Oral Clonidine and Tramadol for Perioperative Shivering in Geriatric Patients Undergoing Transurethral Resection of Prostate under Subarachnoid Block**

Department of Anaesthesiology & Critical care, SKIMS, Srinagar

**ABSTRACT**

AIMS AND OBJECTIVES: To study the efficacy and potency of oral clonidine and tramadol in perioperative shivering in geriatric patients undergoing trans-urethral resection of prostate under spinal anaesthesia, to study their hemodynamic effects and to study side effects of tramadol and clonidine

MATERIAL AND METHODS: A total of 150 geriatric patients, ASA grade I-III, were randomly selected and allocated into three groups (50 patients each). Group C received 150ug of oral clonidine, Group T received 50mg of oral tramadol and Group P received oral placebo tablet 90 minutes prior to surgery. Under all aseptic precautions, sub-arachnoid block was performed with bupivacaine at L3-L4 intervertebral space. Sedation and their grades; Heart rate, Blood pressure, Oxygen saturation, Axillary temperature were monitored at a period of 0 minutes (before subarachnoid block), 15 minutes, 30 minutes, 45 minutes, 60 minutes, 90 minutes after subarachnoid block. Associated side effects in the form of nausea, vomiting, hypotension and bradycardia were also recorded.

RESULTS: In group C, 4 patients shiver and all experienced shivering of grade 1 and grade 2. In group T, 5 patients experienced shivering with grades 1-3. In group P, 24 patients experienced shivering and grades 1-4. On comparison of incidence of shivering among group C versus group P, and group T versus group P, a statistically significant difference was seen, whereas group C and group P has statistically insignificant variation. Hemodynamic variables, axillary temperature and oxygen saturation were comparable among groups. There was no significant difference among the three groups regarding hypotension and bradycardia, however tramadol increase chances of nausea and vomiting in group T.

CONCLUSION: Prophylactic ally administered oral clonidine and tramadol were effective in preventing perioperative shivering after subarachnoid block in patients who underwent transurethral resection of prostate.
Role of Enteroscopy in Obscure GI Bleed

Department of Gastroenterology, SKIMS, Srinagar

ABSTRACT

BACKGROUND: The new methods available to directly observe the entire small intestine are capsule endoscopy (CE) and balloon-assisted enteroscopy (BAE), with reported similar diagnostic yield, for patients with obscure gastrointestinal bleeding (OGIB).

AIMS AND OBJECTIVES: The aim and objective of our study was to examine prospectively the diagnostic precision and the clinical efficacy of Single balloon enteroscopy in obscure Gastrointestinal bleeding. We further compared the diagnostic yield of SBE performed for overt OGIB versus SBE for occult OGIB.

MATERIAL AND METHODS: A total of 40 consecutive SBE examinations were performed for OGIB, 28 procedures for overt OGIB and 12 for occult OGIB. Patients with OGIB were enrolled in this prospective observational cohort study and subsequently divided into two groups according to the bleeding types: overt bleeding and occult bleeding. Obscure gastrointestinal bleeding (OGIB) is defined as bleeding from the gastrointestinal tract that persists or recurs after a negative initial evaluation using bidirectional endoscopy and radiologic imaging with small-bowel radiograph. SBE was performed using either oral (antegrade) or anal (retrograde) insertion, depending mostly on the Capsule Endoscopy findings, and in some cases depending on radiological findings. For comparison, patients with overt OGIB were included in group A. Patients with occult bleeding were included in group B.

RESULTS: This study included total 40 patients of obscure GI bleed (overt or occult). 28 patients had overt bleed while 12 patients had occult bleed. Among Overt bleed, 8 patients had active bleed while 20 patients had inactive bleed. SBE was attempted in all patients. Out of 28 patients with overt GI bleed, source was identified in 21 patients. Among 12 patients with Occult bleed, 5 patients had source identified. Among 8 patients with active overt bleed, 5 patients had source identified. Among 20 patients with inactive overt bleed, 16 patients had source identified. Vascular ectasia seen in 10 patients (n=10) while small bowel ulcers were seen in 5 patients (n=5). Dieulafoy lesion seen in 1 (n=1) patient. Vascular malformations were seen in 2 patients (n=2). Angiodysplasia was seen in 1 patient (n=1). Jejunal GIST was seen in 1 patient (n=1). Jejunal active bleeder was seen in 1 patient (n=1). In 1 patient, blood was seen filled in terminal ileum (n=1).

CONCLUSION: This study revealed an important role of emergency SBE in the diagnosis of bleeding etiology in active overt OGIB.
Study of Risk Factor Profile, Clinical Characteristics and Outcome of Patients with Acute Pulmonary Thromboembolism

Department of Internal Medicine, SKIMS, Department of Radiodiagnosis, SKIMS, Department of Cardiology, SKIMS, Srinagar.

ABSTRACT

AIMS & OBJECTIVES: To Study The Risk Factor Profile, Clinical Characteristics, And Outcome Of Patients With Acute Pulmonary Thromboembolism (PTE). To Identify Factors Associated With Increased Mortality In These Patients.

MATERIALS & METHODS: Subjects were included from two cohorts: 1. retrospective-patients admitted with a diagnosis of PTE from 2010 to 2015. Inpatient medical records of all these patients were reviewed & analyzed to get information about the patient demographics, risk factors, clinical examination, laboratory investigations, and treatment(s) given; 2. Prospective- newly diagnosed patients of pulmonary embolism admitted in our hospital from August 2015 to June 2017, were enrolled, assessed & followed.

RESULTS: 101 patients were included in the study with a mean age of 51.0 years (±15.17, range 18-85 years). Most common underlying risk factors were immobilization (34.7%), chronic lung disease (18.8%), trauma to lower extremities (15.8%) & surgery within last three months (13.9%). The most common symptom prompting evaluation for PTE in our study patients was dyspnea (95%), cough (36.6%) and pleuritic chest pain (36.6%). The median hospital stay was 12 days (SD±7 days). Among 101 patients, 9 patients died in the hospital, thus constituting an in hospital mortality of 8.9%. Hypotension at presentation and low pco2 were seen to be associated with worse outcome.

CONCLUSION: Patients with pulmonary embolism have varied clinical presentation. Immobilization is the most prevalent risk factor & hypotension at presentation predicts poor outcome.

Utility of Real Time PCR in Diagnosing Pleural & Peritoneal Tuberculosis

Department of General Medicine SKIMS, Department of Immunology & Molecular Medicine, SKIMS

ABSTRACT

AIMS AND OBJECTIVES: To evaluate the efficacy of REAL TIME PCR for the diagnosis of TB in pleural effusion and Ascites, to compare the efficiency of RT-PCR with conventional technique for the diagnosis of Peritoneal and Pleural TB and to compare the efficacy of RT-PCR with conventional PCR.

METHODS: The study was conducted at SKIMS Soura. and 90 patients having pleural effusion
effusion and/or Ascites with clinically suspected TB admitted in Sher-I-Kashmir Institute of Medical Sciences, Srinagar were recruited for the study. In addition to conventional tests used for diagnosing Pleural & Peritoneal Tuberculosis, RT-PCR for MTb was carried on the samples in the Department of Immunology and Molecular Medicine.

**RESULTS:** The combined sensitivity and specificity for RTPCR-SYBR GREEN in our study (Pleural tb + Peritoneal tb) was 50.9 % & 100 % respectively. The combined sensitivity and specificity for RTPCR by Taqman technique in our study (Pleural tb + Peritoneal tb) was 68.4 % & 100 % respectively. The lowest bacterial load we could detect in terms of Copies/ml were as low as 160/ml and as high as 315520/ml. RTPCR for extrapulmonary tb (pleural & peritoneal) had better specificity when compared to conventional methods, and also better sensitivity than most of the conventional methods except for ADA & Montoux which had low specificity as compared to RT-PCR.

**CONCLUSIONS:** Our results suggest that RT PCR MTB may have a potential role in confirming tuberculous pleuritis & tubercular ascites. However, these tests have low and variable sensitivity and, therefore, may not be useful in excluding the disease. Due to these limitations, we need more studies in future to unequivocally establish the role of RT-PCR in extrapulmonary tuberculosis concluding that RT-PCR, even in an endemic region, therefore, cannot replace conventional tests; and shouldn’t be relied on as a test that will substitute for diagnostic methods already available, but as an extra tool for the diagnosis of PTB. They need to be interpreted in parallel with clinical findings and results of conventional tests.

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**Treatment of Chronic Hepatitis C Genotype 3 with Ledipasvir and Sofosbuvir**

Department of Gastroenterology, SKIMS, Soura Srinagar

**ABSTRACT**

**INTRODUCTION:** Genotype 3 hepatitis C virus (HCV) accounts for approximately 20% of all HCV infections globally and 40% of infections in Asia. Despite some preliminary data from ELECTRON-2 trial regarding use of Ledipasvir and Sofosbuvir combination in Genotype 3 there are no guidelines recommending this combination in such patients.

**AIMS & OBJECTIVES:** To evaluate the efficacy (RVR and SVR) and safety of Ledipasvir and Sofosbuvir in chronic hepatitis C Genotype 3 infection in Kashmiri population.

**METHODS & METHODS:** It was a prospective, open label, hospital based observational study. Patients of chronic hepatitis C Genotype 3 were divided into two groups: Non-cirrhotic and Cirrhotic. Non-cirrhotic patients received Ledispavir/Sofosbuvir...
RESULTS: We enrolled 104 patients of chronic hepatitis C over a period of 18 months. Females constituted 66 (63.5%) and males were 38 (36.5%). Average age was 40 years (range 18-76 years). Out of 104 patients, 86 (82.7%) were genotype 3, 15 (14.9%) genotype 1 and 3 (2.9%) genotype 4. Out of 86 genotype 3 patients 78 (90.6%) were non-cirrhotic and 8 (9.3%) were cirrhotic. Among non-cirrhotic genotype 3 patients 75 (96%) achieved SVR12 while as 6 (75%) among cirrhosis. All patients tolerated the combination well however some patients experienced nausea (26%), headache (25%) and fatigue (21%).

CONCLUSIONS: Single tablet ledipasvir and sofosbuvir combination is safe and effective in genotype 3 even without ribavirin in Non-cirrhotic patients.

Significant Impact of APO Lipoprotein A1 Genetic Polymorphic Sequence Variation and its Relative Expression in Patients with Bladder Cancer

Department of Urology, Department of Advanced centre for Human Genetics and Department of Immunology and Molecular Medicine, Skims, Srinagar

BACKGROUND: Apo-A1, a constitutive anti-inflammatory factor, is a potential biomarker due its variable concentration in blood in different types of cancers. A prospective study was conducted to evaluate the association of the APOA1 -75 G/A and +83 C/T genotypes with predisposition to bladder cancer. Further, APOA1 protein expression was analyzed in urine samples of bladder cancer patients to find out the potential relationship between differentially expressed urinary proteins and variation in APOA1 -75 G/A and +83 C/T genotypes.

MATERIALS AND METHODS: Confirmed 90 bladder tumor samples and 100 healthy controls were included in this casecontrol study. Genotyping of the APOA1 was performed by PCR-RFLP and expression of Apo A1 protein in the urine of patients with bladder cancer was done by ELISA

RESULTS: Patients with bladder tumors were significantly associated with APOA1 -75 AA genotype (with nearly 4 fold risk) and APOA1 -75 A allele (p<0.05). On the other hand APOA1 +83 CT heterozygotes showed inverse relation with bladder tumors (p<0.05). Significantly higher expression of urinary APOA 1 protein (≥20ng) of bladder cancer patients was observed in APOA 1-75 AA genotype. There were marked significant differences in the pattern of urinary APOA 1 concentration in different grades of bladder tumors wherein 52.5% low grade tumors presented with higher concentration (≥20ng) as against 15.4% in higher grades and the situation was reverse as 84.6% high grade cases had APOA 1 concentration <20ng/ml versus 47.6% low grade cases (O.R= 6.08 and
p=0.01).

**CONCLUSION:** We conclude APOA1 protein expression can serve as a diagnostic marker for more malignant bladder tumors and its sequence variation APOA 1-75AA can act as a marker for risk assessment of the disease. Since this a first study from the world, our results need to be further investigated in large series of samples to authenticate the status of this gene as substantiated in our study.

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**Eyelid Reconstruction: An Institutional Experience**

Department of Plastic and Reconstructive Surgery, SKIMS, Srinagar

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**ABSTRACT**

**BACKGROUND:** Eyelid defects are caused as a result of congenital anomalies, trauma, or after excision of the neoplastic diseases of the lid. The reconstruction of the eyelids is a surgical challenge. The basic aim of reconstruction is to restore the anatomy and function of eyelids. Various methods of reconstruction are used depending upon the eyelid (upper/lower), size of defect, component loss and the status of surrounding tissue.

**AIMS AND OBJECTIVES:** To evaluate the etiology of eyelid defects, to evaluate the eyelid reconstructive procedures, to evaluate the functional and cosmetic outcome of eyelid reconstructive procedures and to look for any postoperative complications and need for secondary treatment.

**MATERIAL AND METHODS:** This study was conducted retrospectively from January 2012 to July 2015 and prospectively from August 2015 to July 2017 in the Department of Plastic and Reconstructive Surgery SKIMS. All the patients (30 in number) who needed eyelid reconstruction for their eyelid defects due to any cause were included in the study. The patients were operated with the appropriate eyelid reconstructive procedure suited for a particular defect. In the postoperative period, the aesthetic and functional outcome of these reconstructive procedures were assessed and were classified into Excellent, Satisfactory, Acceptable/good and poor.

**RESULTS:** Overall aesthetic outcome of these reconstructive procedures were found to be excellent in 46.66%, satisfactory in 23.33%, acceptable in 30% patients. As for as the functional outcome of these procedures is concerned we found excellent outcome in 53.33%, good in 26.66%, acceptable in 20% patients. As for as the surgical technique is concerned we had the best results in direct closure and McGregor flap techniques both in aesthetic and functional outcome.

**CONCLUSION:** Proper planning for upper and lower eyelid reconstruction begins with fundamental knowledge of eyelid anatomy and defect size analysis. While choosing a reconstructive method, the specific function of the area of the eyelid, tissue characteristics (colour, texture and thickness) has to be kept in mind.
Intraoperative Parathyroid Hormone Monitoring in Guiding Adequate Parathyroidectomy

Department of general and minimal access surgery Skims, Department of Endocrinology Skims and Department of Immunology and Molecular Medicine

A B S T R A C T

BACKGROUND: Parathyroidectomy has been traditionally performed through bilateral neck exploration (BNE). However, with the use of intraoperative parathyroid hormone assay (IOPTH) along with preoperative localization studies, focused parathyroidectomy can be performed with good surgical success rate, multiglandular disease can be predicted and hence recurrence and surgical failure can be prevented. Furthermore, it predicts eucalcemia in postoperative period. The aim of this study was to evaluate the usefulness of IOPTH assay in guiding adequate parathyroidectomy in patients of primary hyperparathyroidism.

METHODS: Between year 2015 and 2017, 45 patients of primary hyperparathyroidism underwent parathyroidectomy with IOPTH assay employed as an intraoperative tool to guide the surgical procedure. Blood samples were collected: 1) at pre-incision time, 2) pre-excision of gland, 3) 5 minutes post excision of gland, 4) 10 minutes post excision of gland. On the basis of the Irvin criterion, an intraoperative PTH drop >50% from the highest either pre-incision or pre-excision level after parathyroid excision was considered a surgical success. Otherwise, BNE was performed and search for other parathyroid glands done.

RESULTS: 10 minutes post excision PTH levels dropped >50% in 34 (75.6%) of patients. True positive among them were 31 (68.8%), true negative 8 (17.7%), false positive 3 (6.6%) and false negative 3 (6.6%). We performed focused exploration at the outset in 40 (88.9%) of patients and bilateral exploration for 5 patients as guided by preoperative localizing studies. So IOPTH was helpful in guiding further exploration in 8 (17.7%) of patients and prevented further exploration in 32 (71.1%) of patients and also was able to predict eucalcemia in 97.7% of patients at 6 months. Thus IOPTH was able to obviate or to ask for additional procedure in 88.8% of patients. However, in 3 (6.6%) of patients IOPTH would guide unnecessary exploration and in equally i.e 3 (6.6%) of patients may require reoperation for unidentified parathyroids.

CONCLUSION: IOPTH in adjunct with other localizing studies is very helpful for carrying out successful parathyroidectomy in uniglandular disease and predicting postoperative eucalcemia. But more importantly its role is valuable in equivocal imaging, in such cases it prevents unnecessary exploration or helps in adequate parathyroidectomy.
Extracorporeal Shock Wave Lithotripsy Versus Ureterorenoscopic Lithotripsy for Management of Upper Ureteric Calculi

Department Of General Surgery, SKIMS, Srinagar

ABSTRACT

BACKGROUND: Urinary stones are the third most common affliction of urinary tract next to BPH and Prostate Cancer. ESWL and URSL are among the treatment options available.

AIMS AND OBJECTIVES: To Compare ESWL and URSL procedural and post procedural characteristics including Outcome and Cost.

MATERIAL AND METHODS: A Prospective study was conducted in the department of Urology, SKims on 100 patients with proximal ureteric calculi from September 2015 to July 2017. By random selection, fifty patients were subjected to ESWL and another fifty to URSL. Various parameters were recorded on preformed proforma designed for comparative study.

RESULTS: In our study, parameters like Age and Gender distribution, symptoms at presentation and duration of symptoms, number of stones, stone laterality and grade of hydronephrosis or hydroureteronephrosis were uniformly distributed in two groups (URSL vs ESWL). Spinal anaesthesia or General anaesthesia was required in URSL group only, while as local anaesthesia and sedation was required in some patients in ESWL group. 72% and 88% patients achieved stone clearance in ESWL and URSL group respectively, (p=0.046). DJ stent was used in 20% of URSL patients and none in ESWL group. Procedure time was relatively less for URSL, (p=0.001). Although statistically insignificant, post procedure haematuria and urosepsis were higher in URSL group, whereas pain/colic and fever was slightly higher in ESWL group. Steinstrasse was significantly higher in ESWL group, (p=0.008). Hospital stay was significantly higher in URSL group, (p<0.001). Cost involvement was higher in ESWL group, (p=0.016).

CONCLUSION: Although ESWL is regarded as the preferred choice of treatment for upper ureteric stone, URSL is a safe alternative with an advantage of obtaining an earlier or immediate stone free status in patients with stone size >10mm. In patients with smaller stones <10mm, ESWL may be considered as reasonable alternative to URSL.
Comparison Between Dexmedetomidine and Fentanyl Plus Midazolam on Intubation Conditions During Awake Fiberoptic Intubation

Department of Anaesthesiology SKIMS Medical College Bemina and Department of Anaesthesiology and Critical Care SKIMS.

A B S T R A C T

INTRODUCTION: Awake fiberoptic intubation (AFOI) is a recommended technique for anticipated difficult airway. An ideal regime should provide patient comfort, cooperation, amnesia, hemodynamic stability, and blunt airway reflexes and maintain a patent airway with spontaneous ventilation.

AIMS AND OBJECTIVES: The aim of our study was to compare intubation conditions between dexmedetomidine and fentanylmidazolam combination during AFOI.

METHODS: This prospective, randomized study was conducted on a total of sixty patients of the ASA physical status I and II of either sex, in the age group of 18-60 years having predicted difficult intubation undergoing elective surgeries and the patients were allocated to two groups of thirty patients each. After premedication and topicalization of airways, dexmedetomidine group (Group I, n = 30) received dexmedetomidine 1 μg/kg over 10 min and midazolamfentanyl group (Group II, n = 30) received fentanyl 2 μg/kg plus midazolam 0.02 mg/kg over 10 min. Adequacy of intubation condition was evaluated by cough score and postintubation score. Incidence of desaturation, hemodynamic changes, and sedation using Ramsay sedation scale were noted and compared between two groups.

RESULTS: The demographic characteristics were comparable in the two groups (P > 0.05). The mean Ramsay sedation score in Group I was 3.13 ± 0.937 and Group II was 3.16 ± 0.949, and the comparison between two groups was statistically insignificant (P = 0.891). Cough scores and postintubation scores were favorable in dexmedetomidine group than midazolamfentanyl group and were statistically significant with P < 0.001 and 0.0001, respectively. Group I also showed better hemodynamics and less episodes of desaturation than Group II.

CONCLUSIONS: Dexmedetomidine is more effective than midazolamfentanyl during AFOI, as it provides better intubation condition, hemodynamic stability, and preservation of airway and spontaneous ventilation.
Clinical Profile Of Ewing's Sarcoma/Primitive Neuroectodermal Tumor in Kashmir

Department of Medical Oncology, Department of Radiation Oncology and Department of Surgical Oncology, SKIMS, Srinagar

ABSTRACT

AIMS AND OBJECTIVES: To study the epidemiological and clinical profile of EWING'S SARCOMA/PNET patients to study the impact of prognostic factors on outcome of patients and to study the overall outcome in localized, metastatic and recurrent disease.

MATERIALS AND METHODS: The present study is an observational study started from 2008 till 2015 retrospectively, and 2015 till 2016 prospectively in the Department of Medical Oncology and regional cancer centre registry at SKIMS Srinagar. After the clearance from institutional ethical committee, a detailed data was recorded regarding demography, clinical characteristics, imaging details, laboratory investigations and treatment received, from Regional cancer centre registry data base. Only histologically proven Ewing sarcoma/Primitive neuroectodermal tumor patients were taken and recorded as per the pre-formed proforma.

RESULTS: The male to female ratio was 1.1:1. The mean and median age of presentation were 20.27 and 18.0 years respectively. The most common symptom was swelling followed by pain. Skeletal Ewing sarcoma were 55 (56.7%) and 42 (43.3%) were soft tissue ES. Most common site was pelvic bones, followed by Tibia, chest wall ribs and then by femur. Among the 42 patients of extra-skeletal Ewing sarcoma, most common site of primary was soft tissues of lower limbs. 60% had localized disease and 40% had metastatic disease. Most common site of metastasis was lungs. Most of our patients (85%) received chemotherapy. The optimum duration of chemotherapy received by only 24.7% of patients. 67% patients received local control treatment. Mean OS was 2.3(27.6 M) years and median OS was 2.0(24 M) years, with a range of 0.7(8.4 M) to 8.9(106.8 M) years. The 3year OS was 26.5% and 5-year OS is 7%. In univariate analysis, all prognostic factors had no significant impact on PFS, DFS and OS, except gender, which had significant (p=0.025) impact on PFS. Similarly, LDH, age and ESR had significant impact on OS. In multivariate analysis, ESR (P=0.023) had significant impact on DFS (P=0.016) and Platelet count had significant impact on OS.

CONCLUSION: We conclude, that all patients should receive optimum duration of systemic treatment, and high risk patients should be offered better aggressive treatment with newer drugs or compressed chemotherapy to achieve western results.
**Overview of Liver Resection at SKIMS**

Kar Irfan
Sadaf Ali
Mir Wahid
Bhat Nisar

**ABSTRACT**

**AIMS & OBJECTIVES:** To study the indications and demographic profile of liver resection at our institute and to study the types of liver resection & Assessment of operative details and perioperative complications.

**MATERIALS AND METHODS:** The study, “OVERVIEW OF LIVER RESECTION AT SKIMS” was conducted at SKIMS Soura, Srinagar. 122 patients were studied retrospectively, from January 2005 to August 2015 and then prospectively from 2015. Retrospectively files were procured from MRD and studied.

**RESULTS & CONCLUSION:** Oriental cholangio-hepatitis was the established clinical diagnosis in maximum 45 cases (36.9%) followed by carcinoma gall bladder which comprised total of 37 cases (30.4%). Liver metastasis which included solitary masses as well as multiple lesions were 10 cases in the series (8.2%). Trauma, hydatid cyst and hepatic haemangiomas were in equal proportion totalling 18 cases 4.9% each. In the study, 55 underwent LLS (45.1%). Standard wedge resection was done in 30.7% cases. Left hepatectomy and right hepatectomy was done in 10.7% and 8.2% cases respectively for varied pathologies.

**Single Centre Experience of Gastrointestinal Stromal Tumours**

Khanday Rayees A
Malik Ajaz A
Wani Munir A
Rasool Zubaida
Lone Ab Rashid

**ABSTRACT**

**BACKGROUND:** Gastrointestinal stromal tumors (GIST) are the rarest of the gastrointestinal tumors. They arise from interstitial cells of Cajal. These tumors arise due to mutations in the KIT and PDGFRA gene.

**AIMS & OBJECTIVE:** To study the clinical profile, immunohistochemistry, surgical results, adjuvant treatment and recurrence of Gastrointestinal stromal tumors (GIST).

**MATERIAL AND METHODS:** It was a retrospective and prospective study in design. Prospectively all patients of GISTs who came to department of general surgery, SKIMS from 2015 onwards were included in the study. Retrospectively, data regarding the clinical profile histopathological features and surgical results of GIST patients was gathered from the institute’s medical records section. Patients were followed for any recurrence. A total number of 50 patients were studied.

**RESULTS:** Out of fifty patients twenty six were females (52%). The tumour was most
commonly seen during the fifth and sixth decades of life. Gastrointestinal bleeding (38\%), abdominal pain (34\%), and dysphagia (10\%) were the common clinical symptoms. Sixty-four percent of the tumours were located in the stomach followed by small bowel (20\%) and duodenum (8\%). 22\% patients underwent Wide Local Excision, 20\% Wedge Gastrectomy, 16\% Resection Anastomosis of gut and 12\% underwent laparotomy with excision of GIST. Orringer's Esophagectomy and Pylorus Preserving Pancreatoduodenectomy was performed in 4\% patients each. 2\% patients underwent Right Hemicolectomy and Upper Partial Gastrectomy each. The tumour size ranged from 1 to 14 cm. 22\% of the tumours belonged to the high-grade category, 26\% to intermediate and 52\% to low risk group. KIT protein (CD117) was positive in 96\% of tumours. Majority of the patients with high and intermediate-risk category received adjuvant Imatinib (42\%). Six patients (12\%) developed recurrence of the tumour on follow-up and rest of the patients had stable disease. 5 of the 11 patients (45.5\%) who had high risk disease developed recurrence of the disease over 6 months to 2 year. 3 patients died on follow-up between 1 and 4 years.

CONCLUSION: GISTs are one of the rarest tumors of GI tract. They are more common in middle aged people. Diagnosis involves radiology, histopathology and immunohistochemistry. Treatment is surgical and chemotherapy.

Factors Affecting Operating Time in Resection of Rectal Cancer

Colorectal Division, Department Of General And Minimal Invasive Surgery, SKIMS and Department of Radiodiagnosis, SKIMS Soura Srinagar

ABSTRACT

INTRODUCTION: Colorectal cancer is one of the most common malignancies and one of leading causes of cancer death in U.S. and worldwide. Operating time of resection of rectal cancer is affected by multitude of factors like BMI, gender and anatomical factors.

AIMS & OBJECTIVES: To identify factors affecting operating time in surgical resection of rectal cancer on the basis of: tumor distance of anal verge, BMI, CT pelvimetry, gender. Methods: The records of 29 patients with mid-lower rectal cancer who underwent resection where prospectively studied. Demographic data, BMI, distance of tumor from anal verge, and pelvimetry measurements where collected and analyzed with respect to operating time using co relation coefficient analysis, principal component analysis and linear regression.

RESULTS: A total of 29 patients, {20 (68.96\%) female and 9 (31.03\%) were male} were studied. The mean operating time was 136.72+30.09 (table 1). Males have longer operating time than females by about 4 minutes which was statistically significant (p 0.001). Univariate analysis showed that BMI (p=0.0000), IA (p=0.0001), IP (p=0.020), IS (p=0.0000), IT (p=0.0000), COSY (p=0.0000), Angle 5 (p=0.0004), Td (p=0.0000) correlated with operating time. However multivariate analysis showed that BMI
(P=0.05), IP (P=0.004), IT (P=0.003), Angle 5 (p=0.017), Td (p=0.001), were statistically significant. Whereas IA (P=0.11), COSY (P=0.674) were not. The equation is 
\[ OT = 457.44 + 1.17(BMI) + 2.13(IA) - 4.25(IP) + 9.43(IS) + 4.77(IT) + 0.64(COSY) + 1.53(Angle 5) + 7.72(Td) \]

CONCLUSION: Gender, BMI, angle 5, tumor distance from anal verge, transverse diameters of the pelvis except IA, and COSY played the most important role in affecting operating time. The equation can be very useful tool for preoperative assessment.

Comparison of Ropivacaine 0.2% Alone and in Combination with Dexamethasone in Intravenous Regional Anesthesia

Department of Anesthesiology & Critical Care, SKIMS, Srinagar

OBJECTIVE: To compare the analgesic efficacy and duration of sensory and motor block of ropivacaine 0.2% alone with ropivacaine dexamethasone combination in intravenous regional anesthesia.

METHODS: After securing informed consent a total number of 50 patients of ASA physical status I and II aged 20 to 50 years undergoing ambulatory hand surgery were taken. 25 patients received 40 ml of 0.2% ropivacaine whereas 25 patients received 40 ml of 0.2% ropivacaine and 8mg dexamethasone. Onset, duration and recovery times of sensory and motor block, time to the request for first analgesic and total analgesic consumption in 24 hours were recorded.

RESULTS: The duration of sensory block, recovery time of sensory block and duration of analgesia was significantly prolonged in study group and the total analgesic consumption in first 24 hours was significantly decreased in study group. However the onset of sensory and motor block, duration of motor block and recovery time of motor block showed differences which were not significant between the study and control group.

CONCLUSION: Intravenous regional anaesthesia is effective for short procedures on distal extremities. Adding 8 mg of dexamethasone to ropivacaine prolonged duration and recovery time of sensory block, besides producing prolonged analgesia and reducing postoperative analgesic consumption.
Assessment of Injection Practices in Various Health Care Settings of Kashmir Valley

Postgraduate, Department of Community Medicine, SKIMS, Srinagar

**ABSTRACT**

**AIMS AND OBJECTIVES:** To assess the injection practices prevailing in various health care settings of the valley, to assess the KAP (Knowledge, Attitude and Practice) of injection providers, to recommend measures for ensuring injection safety in our health care settings.

**MATERIAL AND METHODS:** Cross sectional observational questionnaire based study was carried out amongst 152 injection providers of 40 healthcare facilities of two districts of Kashmir valley (one rural and one urban) selected purposively.

**RESULTS:** Overall 65.8% and 67.1% of injection providers had correct knowledge regarding WHO definition of safe injection and infections transmitted by unsafe injections respectively. Majority (90.8%) were aware about the biomedical waste management rules. Recapping of used syringes was observed in 68.2% of injection providers. Also majority of waste handlers (86.2%) carried waste bags by hand and 20.3% picked scattered sharps by bare hands. Loose needles and syringes were observed in 42.5% of the facilities.

**CONCLUSIONS:** It is concluded that all the injections observed were provided in an unsafe manner and there was disparity between knowledge and practices on various aspects of injection safety. Waste handlers were not using protective wear and did not follow BMW management rules for waste management.

Outcome of Thrombolysed and Non Thrombolysed Acute Ischaemic Stroke Patient and Determining the Factors that Prevents Thrombolysis

Department of Internal Medicine, Department of Emergency Medicine and Department of Neurology, SKIMS, Soura, Srinagar

**ABSTRACT**

**AIMS AND OBJECTIVES:** Outcome of thrombolysed and not thrombolysed acute ischaemic stroke patient at three month follow up. Identify the factors that delay thrombolysis of acute ischaemic stroke.

**MATERIALS AND METHODS:** This was a prospective cross-sectional observational study and was conducted in the department of emergency medicine in collaboration with Neurology department of SKIMS from July 2015 to July 2017. All the consecutive patients
who presented to our emergency department (ED) of SKIMS with acute stroke between July 2015 and July 2017 were included in this study. The guideline of the American Heart Association (AHA) which was published in 2013 was taken into consideration for determining the patients for whom thrombolytic therapy was indicated. The baseline characteristics of patient with acute ischemic stroke brought/admitted to ER within 4hr, clinical features, onset to door time (OTD), mode of arrival, severity of stroke (NIHSS), door to CT time (DTC), radiological findings, contraindication for thrombolytic treatment, time of starting recombinant tissue plasminogen activator (DTN), hemorrhage transformation and outcome of thrombolysis (mRS) at three month follow up were recorded.

**RESULTS:** Out 2023 patients, 1085 (53.6%) cases were found to be of hemorrhagic stroke which includes 973 (89.6%) cases of intracerebral hemorrhage and 112 (10.3%) cases of subarachnoid hemorrhage. Out of total ischaemic stroke only 87 (9.2%) patients of ischaemic stroke presented within period of 4 hrs and only 34 (3.6%) patients received intravenous alteplase grouped as rtPA-group and 35 patients who didn’t received alteplase grouped as non-rtPA group and rest eighteen patients had contraindication so they were excluded. The biggest hurdle for thrombolysis is prehospital delay (90.2%). Mean time to treatment in minutes : OTD, 141.9±60.89min; DTC, 42.2±24.60min; DTN, 82.7±49.17; OTN, 186.3±45.06min. Earlier the patients arrives to the hospital, there is more delay in administration of drug (r=-0.597; P=0.001). Hemorrhagic transformation was present on repeat NCCCT head after 24-36hr post thrombolysis in 6 (17.6%) of rtPA gp and 3 (8.6%) in non-rtPA gp (P=0.446). mRS on 90 days follow up with favourable (m RS: 0-1) outcome seen in 17 (50.0%) patients of rtPA gp and 13 (37.1%) patients of nonrtPA gp (P=0.068). Total death during 90days follow up seen in 3 (8.8%) patients in rtPA gp and in 3 (8.5%) patients non-rtPA gp (P=1.000).

**CONCLUSION:** Haemorrhagic stroke occurs in majority of stroke patients (53.6%) in our community. Most significant barrier for thrombolysis in Ischaemic stroke patients is pre-hospital delay. Thrombolytic therapy presented positive outcomes, regardless of long thrombolysis time.

**Comparision of Hepaticoduodenostomy Vs Roux EN Y Hepaticojejunostomy for Bilioenteric Reconstruction After Choledochal Cyst Excision In Children**

Department of Pediatric Surgery, SKIMS, Srinagar

**ABSTRACT**

**INTRODUCTION:** Primary cyst excision with biliary reconstruction is the standard treatment of choledochal cysts. Roux-en-Y hepaticojejunostomy (REYHJ) or hepaticodudenostomy (HD) is the most commonly used techniques for biliary reconstruction.
OBJECTIVE: The aims of the study was to compare two operative procedures in choledochal cyst viz a viz immediate post-operative course, short term, long term issues and functional outcomes.

MATERIALS AND METHODS: This was a prospective & retrospective study including 57 patients with choledochal cysts, who were treated during the period from 2012 to 2017. The study population was classified into two groups according to the method used for biliary reconstruction. Group 1 included 38 patients who undergone RYHJ, while group 2 included 19 patients treated with HD. All patients were studied as regard to the details of clinical presentation, operative details, and outcome. Statistical comparison was done with unpaired t and Mann Whitney U tests & chi square test with P value < 0.05 considered significant.

RESULTS: The age and sex distributions were comparable among both groups. The mean operative time was longer in group 1 than in group 2 (176±26.7 mins Vs 110±35.8 mins, p value= 0.000). The start of postoperative feeding was similar in both groups HD = 3(2-3) days vs REYHJ = 3(3-4) days; p value= 0.01. There were no major intraoperative complications in either group. No patient in any group developed postoperative cholangitis. Adhesive bowel obstruction occurred in 1 patient in group 1 (who was successfully reoperated). 26.32% patients in HD developed bile gastritis. Both RYHJ and HD are effective techniques for biliary reconstruction following excision of the cyst with satisfactory and comparable results on both early and long-term follow up.

CONCLUSIONS: Early to intermediate follow up shows no significant difference between the two groups. Hepaticojejunostomy serves a versatile option for difficult biliary anatomy and unusual presentations.

Observations on Sagittal Alignment of Lumbo-Sacral Spine in Asymptomatic Adults In Kashmir

Department of Orthopedics SKIMS MCH Bemina

AIMS AND OBJECTIVES: To determine the physiological values of spino-pelvic sagittal parameters in asymptomatic adults in Kashmir, the results of which can be used in better surgical management of patients.

METHODS AND MATERIALS: 200 Volunteers were taken from general population with age ranging from 18-50. A standing left lateral radiograph exposing C7 to S1 and both the hips with a long 30x90 cm cassette placed at 230 cm from the X-ray tube was performed by a single radiographer to avoid bias

RESULTS: The average LL, SS, PI, PT, and SVA values were average 55.61±10.68, 38.38±8.33,47.94±10.24,10.16±6.23 and 17.27±9.72 respectively. No statistically significant difference was observed in these values with regards to sex and age < 35years
and > 35 years except change in LL. Our study showed that PI has significant positive correlations with SS, LL and PT, and also affects LL. SS has significant positive correlation with LL.

**CONCLUSION:** The current results could contribute to not only the understanding of normal sagittal spinal alignment, but also serve as a basis for realignment strategies in young Kashmiri adults.

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**Evaluation of Acute Appendicitis with Magnetic Resonance Imaging : A Prospective Study**

Department of Radiodiagnosis SKIMS, Department of General Surgery SKIMS, Department of Pediatric Surgery SKIMS

**ABSTRACT**

**AIMS AND OBJECTIVES:** To evaluate the role of magnetic resonance imaging in diagnosis of acute appendicitis and to compare MRI findings in acute appendicitis with that of intra-operative findings.

**MATERIALS AND METHODS:** Forty patients (21 females, 19 males) suspected of acute appendicitis with inconclusive ultrasound findings were evaluated prospectively with an MRI examination. Axial and coronal T2W spin echo, T2W single shot turbo spin echo (HASTE) in multiple planes, STIR and TRUFISP sequences were taken and images reviewed by experienced radiologist. Examination was graded as positive, negative or indeterminate regarding presence of acute appendicitis. The factors assessed were appendix visualisation, outer diameter of appendix, mural thickness, mural edema, intraluminal fluid, periappendiceal inflammation, RIF fat stranding and presence of appendicolith. MRI positive patients were operated and intra-operative and histopathopathology findings compared, while MRI negative patients were followed clinically.

**RESULTS:** Our study showed that MRI has sensitivity of 92% and specificity of 96%, negative predictive value of 96% and positive predictive value of 92% and overall accuracy of 95% for the diagnosis of acute appendicitis. Appendix was visualised in 70% of patients and alternate diagnosis was provided in 34% patients.

**CONCLUSION:** MRI is a useful investigation in cases of suspected appendicitis with inconclusive ultrasound examination. It carries no risk of radiation making it a valuable tool for children, young girls and pregnant patients.
Prevalence of Rickettsial Infections in Patients of Undifferentiated Febrile Illness - A Hospital Based Study

Department of Microbiology, Department of Medicine, Department of Paediatrics, SKIMS, Srinagar

**ABSTRACT**

**INTRODUCTION:** Undifferentiated febrile illness (UFI) is a diagnostic dilemma with a plethora of organisms being responsible. Among them rickettsial infections are important causes but they remain underdiagnosed due to low index of clinical suspicion. Very few case reports are available from out state. Thus, present study was done to determine the prevalence of rickettsial infections in UFI.

**AIMS AND OBJECTIVES:** To determine prevalence of Rickettsial infections in patients of undifferentiated fever.

**MATERIAL AND METHODS:** Blood samples were collected from 344 patients who presented with undifferentiated febrile illness. Baseline titre for detection of rickettsial, Salmonella and Brucella antibodies were determined. Anti-Rickettsial anti-bodies were detected by Weil Felix test, ELISA and IFA. Anti-Salmonella and Brucella antibodies were detected by Widal and microtiter plate agglutination test. IgM antibodies detection against Leptospira, VCA of EBV was done by ELISA, Malarial antigen & NS1 antigen & IgG/IgM antibody to Dengue virus was done by card test. Isolation of various organisms by blood culture was also done.

**RESULTS:** Prevalence of Rickettsial infections was 15%. Anti salmonella antibodies were positive in 8.3%, Brucella in 7.3% and Leptospira in 6.3%. Antibodies to EBV were positive in 2 patients, Malarial antigen was detected in 5 and Dengue in 2 patients. Blood culture was positive in 44 out of 180 patients.

**CONCLUSIONS:** Rickettsial infections were the most prevalent infections followed by Salmonellosis, Brucellosis and Leptospirosis.

Evaluation of Abnormal Uterine Bleeding in Peri-menopausal Women Particular Emphasis on Role of Endocrinopathies in the Causation

Department of Obstetrics and Gynaecology, Department of Endocrinology and Department of Immunology & Molecular Medicine, SKIMS, Soura, Srinagar

**ABSTRACT**

**AIMS AND OBJECTIVES:** To study the etiology of abnormal uterine bleeding in peri-menopausal women and to study role of endocrinopathies in causing abnormal uterine bleeding in peri-menopausal women.
MATERIAL AND METHODS: This study was conducted in the Postgraduate Department of Obstetrics and Gynaecology, SKIMS Souda, where women ≥35yrs of age attending OPD SKIMS for abnormal uterine bleeding were evaluated. After taking an informed consent, a proforma was filled that included information on subject history, examination and investigations. 200 such cases were taken.

RESULTS: Out of 200 cases, 30 cases were categorized as DUB and in rest 170 cases various abnormalities were studied. Where ever different abnormalities were present, the main contributing abnormality was considered as the etiological factor. In that way fibroid accounted for 24.5%, perimenopause for 17.5%, DUB for 15%, hypothyroid for 13.5% adenomyosis for 12.5%, endometrial hyperplasia for 12%, diabetes mellitus for 1.5%, and 3.5% cases had multiple etiologies.

CONCLUSION: Among the organic causes fibroid, adenomyosis and endometrial hyperplasia, where as among non organic causes hypothyroidism and perimenopause itself contributes the most common cause.

Prevalence of Obstructive Sleep Apnea in Surgical Patients Attending at SKIMS Hospital Kashmir and its Correlation with Perioperative Morbidity and Mortality

Department of Anaesthesiology & Critical Care, SKIMS, Souda, Srinagar

ABSTRACT

BACKGROUND: Obstructive sleep apnea (OSA) is defined as occurrence of at least 5 episodes of apnea or hypoapnea per hour in association of symptoms attributed to sleep disordered breathing.

OBJECTIVES: Aim of the study was to know the the prevalence of Obstructive Sleep Apnea in surgical patients attending at Sher-i-Kashmir Institute of Medical Sciences (SKIMS) Hospital.

METHODOLOGY: This study was conducted in the Department of Anaesthesiology and Critical Care, Sher-i-Kashmir Institute of Medical Sciences Srinagar, Souda, J&K, India after seeking clearance from the Institutional Ethics Committee (IEC). Patients greater than eighteen years of age, ASA class I-II, scheduled for elective surgical procedures under anaesthesia over a period of six months (Oct. 2015-Mar 2016) were enrolled for the study. Patients were evaluated with the preoperative STOP BANG questionnaire and were classified on basis of score into mild, moderate and severe OSA.

RESULTS: When severity of obstruction sleep apnea (OSA) was observed, 577 (96.2%) patients were found to have mild OSA, 11 (1.8%) patients having moderate OSA and 12
(2.0%) patients having severe OSA. We compared OSA with age in our studied patients and found a mean age of 42.1+13.24 years in 577 patients of mild OSA. When BMI was compared with OSA we observed that 577 patients with mild OSA had a mean BMI of 24.1+3.30kg/m2. 11 patients of moderate OSA were having 33.5+1.76 kg/m2. When neck circumference was compared with OSA we observed that 577 patients with mild OSA had a mean neck circumference of 32.4+4.54cms. When association of severity of OSA with Mallampati grading score was done it was found that majority of patients with severe OSA 8 (66.7%) patients belonged to grade IV. In moderate OSA, majority of patients 7 (63.6%) patients belonged to grade III. In mild OSA, majority of patients 353 (61.2%) patients belonged to grade II and 165 (28.6%) patients belonged to grade I and 48 (8.3%) patients belonged to grade III. Association of severity of OSA with the use of bougie to facilitate intubation was also compared.

**CONCLUSION:** We found that patients with moderate to severe OSA had a prevalence of 3.8%. Patients with severe OSA, had an increased incidence of poor mallampati scoring grades, increased use of bougie to facilitate intubation, increased incidence of oxygen desaturation, increased use of CPAP in the postoperative period.

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**Comparative Evaluation of Multiplex PCR and Phenotypic Methods for Detection of Carbapenemase Producing Enterobacteriaceae**

Department of Microbiology, SKIMS, Soura, Srinagar

**ABSTRACT**

**AIM AND OBJECTIVES:** Compare Modified Hodge test and Combined Disc Synergy test with multiplex PCR for detection of carbapenemases in Enterobacteriaceae. Detect prevalence of VIM, IMP, KPC and NDM 1 gene in Enterobacteriaceae isolates.

**MATERIALS AND METHODS:** Enterobacteriaceae isolates from blood culture of the patients. Identification and antimicrobial susceptibility done on Vitek 2. Isolates resistant to Meropenem included in phenotypic and genotypic detection of IMP, VIM, NDM and KPC.

**RESULTS:** A total of 120 Enterobacteriaceae isolates recovered in the lab comprised of 52 meropenem resistant. Out of these resistant strains 35 were MHT positive and 33 CDT positive. blaKPC gene was present in 90.4% isolates, blaNDM gene in 4.7%, blaKPC + blaIMP gene in 2.3% and blaKPC + blaNDM gene also in 2.3% isolates.

**CONCLUSIONS:** Modified Hodge test and combined disk test are sensitive enough for detecting carbapenemase producing Enterobacteriaceae. The most prevalent gene isolated was blaKPC followed by blaNDM and blaIMP. No blaVIM was isolated. Keeping higher cost and expertise associated with the molecular testing and limited role in diagnostics we recommend use of phenotypic rather than molecular testing for detection of carbapenemases.

Department of Radio diagnosis SKIMS and Department of Gynaecology and Obstetrics, SKIMS, Srinagar

ABSTRACT

AIMS AND OBJECTIVES: To evaluate the specificity of using MR imaging and MR hysterosalpingography as a minimally invasive screening test in assessment of infertility and to compare accuracy, positive predictive value and efficacy of MR imaging and MR hysterosalpingography with that of diagnostic laparoscopy (wherever available) in assessment of infertility.

MATERIALS AND METHODS: The procedure was performed in the late follicular phase of the menstrual cycle in 47 patients with primary or secondary infertility aged between 18 and 40 years for MR evaluation of infertility. After cannulating the uterus, acquisition of true pelvis was done using standard axial and sagittal T1-w and T2-w sequences. Following these sequences, 20-40 mL of a 1:100 mixture of Gadodiamide to normal saline (0.9%) was gently hand-injected during a multiphase acquisition using dynamic time-resolved T1-weighted angiographic sequence (3D TRICKS). A final axial T1-weighted, fat-suppressed 3D spoiled gradient echo series was obtained to assess for free peritoneal spill. Comparison was made between MR Hysterosalpingography and diagnostic laparoscopy wherever available. In cases where diagnostic laparoscopy was indeterminate/not available, the diagnosis was made by characteristic imaging findings, or clinical follow up for a period of about one year.

RESULTS: Out of 47 patients, diagnostic laparoscopy was done in twenty three patients. The sensitivity of MR HSG was 100% and specificity 71% when disease was defined as any form of tubal occlusion detected at laparoscopy, be it one-sided or two-sided. The positive predictive value was 69.2% and negative predictive value was 100%. The accuracy was 78.3%. Sensitivity and specificity of MR HSG were 60% and 72.2% respectively when the definition of disease was limited to double-sided tubal occlusion detected at laparoscopy, with positive and negative predictive value being 37.5% and 86.7% respectively. The accuracy was 60.9%.

CONCLUSION: MR HSG is a safe, and feasible investigation in patients where both conventional HSG and standard MRI are necessary for the evaluation of female infertility, with least invasive nature and without the use of ionising radiation.
**Histopathological Study of Gastrointestinal Polyps at Tertiary Care Hospital of Kashmir Valley-5 Year Study**

Department of Pathology and Department of Gastroenterology, SKIMS, Srinagar

**Abstract**

**Aims and Objectives:** To study the histopathological characteristics of gastrointestinal polyps at the tertiary care hospital of Kashmir valley, to investigate the frequency, location, age and sex distribution of these polyps, to assess the prevalence of dysplasia/malignancy in these polyps and to study the association of chronic gastritis and H. pylori infection with gastric polyps.

**Materials and Methods:** The study was conducted in the Department of Pathology of Sher-i-Kashmir Institute of Medical Sciences. It was an observational study of five years. All the patients diagnosed with true Gastro-intestinal polyps enrolled in SKIMS during the year 2012-2016 were analyzed. The retrospective study was based on the histology reports. Histopathological studies were carried out from the available specimens. The possible association of chronic gastritis and Helicobacter pylori with gastric polyps was studied.

**Results:** During the five year study, a total of 595 patients presented with gastrointestinal polyps. 62.7% were males and 37.3% were females. The maximum number of patients belonged to the age group of 51-60 years. Most common site of GI polyps was large intestine. 90.76 percent polyps were of single type. On the basis of histological impression, six types of polyps viz; hyperplastic, adenomatous, retention, peutz-jeghers, juvenile and inflammatory polyps were detected. Adenomatous polyp was the most common polyps reported in our study. 90.76% of polyps were sessile. Out of 136 dysplasia cases, tubular, tubulovillous and villous polyps were seen in 33.09, 54.41 and 12.50% of cases respectively. A total 142 cases were presented with gastric polyps. Hyperplastic was the most common type of gastric polyps. 50.70% and 22.53% cases of gastric polyps showed signs of chronic gastritis and presence of H. pylori respectively.

**Conclusion:** The present study provides an insight into the varied histological patterns of the different true gastrointestinal tract polyps prevalent in Kashmir valley. Continuous surveillance is indicated in patients with neoplastic polyps with malignant potential. The high prevalence of adenomatous polyps in our study also implies the need for screening programmes in our population for early detection and prevention of colorectal carcinomas.
Histopathological and Immunohistochemical Profile of Neuroendocrine Tumours of GIT with Special Reference to IHC Markers at a Tertiary Care Hospital

Department of Pathology, SKIMS, Srinagar

A B S T R A C T

AIMS AND OBJECTIVES: To study the histopathological spectrum of neuroendocrine tumours of the gastrointestinal tract in received biopsies and specimen at a tertiary care centre in Kashmir valley, to evaluate the immunohistochemical expression of chromogranin, synaptophysin, neuron-specific-enolase and Ki-67 in neuroendocrine tumours of gastrointestinal tract and to study the sensitivity and specificity of these markers in neuroendocrine tumours of GIT.

MATERIALS AND METHODS: The study was conducted at SKIMS in the department of Pathology. It was a prospective study for a period of one and half years and retrospective study for three and half years. All cases of neuroendocrine tumours of GIT with or without nodal metastasis sent to our department were analysed. All other primary epithelial gastrointestinal neoplasms were excluded.

RESULTS AND CONCLUSIONS: The study included a total of 40 cases received in our department and with the final diagnosis of neuroendocrine neoplasm. Out of the 40 cases, 23 were from female patients and 17 were from male patients. The most common age group was 51-60 years. The mean age in our study was 48.22 years. Most of the tumours presented as polypoid lesions (45%). Stomach was the most common site. Most of the tumours were well differentiated. Regional lymph node involvement was present in 25% cases. Liver was the most common site for distant metastasis. 43.3% of the neuroendocrine neoplasms were in TNM stage III. On immunohistochemistry synaptophysin, chromogranin A and neuron specific enolase were positive in 100%, 77.5% and 85% of cases respectively.

A Prospective Study of Maternal Outcome of Labor and Perinatal Outcome in Premature Rupture Of Membranes

Department of Obstetrics and Gynaecology, SKIMS, Srinagar

A B S T R A C T

AIMS AND OBJECTIVES: To study the incidence of patients with premature rupture of membranes, to assess the outcome of labor and its effect on maternal morbidity and mortality, to analyse fetal/neonatal outcome in patients of premature rupture of membranes and to study effect of gestational age on premature rupture of membranes.
MATERIALS AND METHODS: A total of 358 patients were included in our study and were admitted. The prospective study included a standardized interview, physical examination and required investigation profile of the patients. Induction was planned and labor was monitored by partogram. Baby was examined in relation with apgar score at birth, birth weight and Respiratory distress syndrome.

RESULTS: The incidence of PROM in our study was 8.76%. Majority of patients were in age group of 27 - 29 years. The incidence of PPH was 2.8 % and puerperal pyrexia complicated 9.8% patients. RDS was seen in 8.9 % neonates, neonatal sepsis complicated 6.7% neonates. 10.1% neonates required resuscitation at birth and 16.8 % required NICU admission.

CONCLUSION: Evaluation of risks of PROM and timely diagnosis is essential to reduce maternal and perinatal morbidity and mortality. Use of corticosteroids before 36 weeks helps to improve outcome in PPROM. Active management is needed to to enable delivery within 24 hours of PROM and it offers better maternal and neonatal outcome.

Non Diabetic Renal Disease in Type 2 Diabetes Mellitus

Department of Internal Medicine, Department of Nephrology and Department of Pathology, SKIMS

ABSTRACT

AIMS AND OBJECTIVES: To study the Prevalence & Spectrum of non-diabetic renal disease (NDRD) in Type-2 Diabetic Mellitus in our setup.

MATERIALS AND METHODS: This study was hospital based Prospective observational study. Thirty three (33) patients of Type-2 Diabetes Mellitus presenting with atypical clinical features of renal involvement after proper clinical assessment and investigations underwent renal biopsies. Biopsy material was subjected to histopathology and immunofluorescence examination.

RESULTS: In our study of 33 patients the overall prevalence of non diabetic renal disease was 69.7% (with or without diabetic nephropathy). Isolated non diabetic renal disease (NDRD) was seen in 48.5% (n=16), Isolated Diabetic nephropathy (DN) was present in 30.3% (n=10) & mixed lesions (NDRD superimposed on DN) were present in 21.2% (n= 7) of patients. Overall, IgA nephropathy was the most common non diabetic renal disease 30.4 % (n = 7) followed by focal segmental glomerulosclerosis 26.1 % ( n = 6) , thrombotic microangiopathy 17.4 % (n= 4) , acute tubular necrosis 8.6 % ( n= 2), membranoproliferative proliferative glomerulonephritis 8.6 % ( n=2), focal necrotising and cresenteric glomerulonephritis 4.3 % ( n=1) and acute interstitial nephritis 4.3 % ( n=1). Only absence of retinopathy showed a significant correlation with NDRD.

CONCLUSIONS: The majority of the participants with T2DM had NDRD either alone or in combination with DN in the study, underlining the utility of renal biopsy for their diagnoses in those with appropriate indication.
To Study the Prevalence of Myelofibrosis in Patients of Acute Promyelocytic Leukemia-A Hospital Based Study

Department of Internal Medicine, Department of Clinical Hematology, and Department of Pathology, SKIMS, Srinagar

ABSTRACT

AIMS AND OBJECTIVES: To study the prevalence of myelofibrosis in patients of Acute Promyelocytic Leukemia. and to study the prevalence of myelofibrosis in patients of AML other than APML.

MATERIALS & METHODS: It was a hospital based study that was carried out in the Department Of Clinical Hematology, SKIMS, Srinagar in collaboration with Department of Pathology. A total of 90 patients were taken, out of which 30 were taken as cases i.e. patients who were diagnosed to have APML (FAB AML-M3) & rest of the 60 were taken as controls, i.e. patients who were diagnosed as other FAB-subtypes of AML. It was a hospital based prospective study, carried out from September, 2015 to June, 2017. The bone marrow aspiration & biopsy was done after taking a written consent from the subjects. Each biopsy was taken using sterile disposable Jamshidi’s bone marrow needle under all aseptic precautions & under local anaesthesia. Bone marrow biopsy was stained with H&E stain & special staining was done using Reticulin staining & Masson trichome staining to see & grade the myelofibrosis (if any).

RESULTS: In our study, among 30 APML cases, myelofibrosis was observed in only 6.7% (n=2) while it was absent in 93.3% (n=28) individuals. Among 60 controls (other than APML), myelofibrosis was observed in 10% (n=6) individuals while it was absent in 90% (n=54) individuals.

CONCLUSION: Myelofibrosis in APML is rare but doesn’t appear to be associated with poor outcome as compared to other APML cases without myelofibrosis. Bone marrow biopsy should be routinely done in all patients of AML-M3 to study the prevalence of myelofibrosis in APML. Single hospital based studies usually give a lower prevalence rate, so larger number of cases & larger studies should be carried out to find out whether APML and myelofibrosis is just an association or APML can present as myelofibrosis.

Evaluation of Risk Factor Based Case Finding Versus Universal Screening for Detection of Thyroid Dysfunction in the First Trimester of Pregnancy

Department of

ABSTRACT

BACKGROUND: Best method to screen for hypothyroidism in early pregnancy is a matter of debate. OBJECTIVES: To evaluate how universal screening & case finding for detection of hypothyroidism in 1st trimester of pregnancy perform, when regional TSH reference
MATERIALS & METHODS: Sample size calculation was based upon prevalence data of hypothyroidism in pregnancy from a north Indian study. 317 women with gestational age (GA) 9 to 12 weeks, with singleton pregnancy were screened for presence of any of 14 risk factors for thyroid dysfunction as defined by American Thyroid Association (ATA) 2017 guidelines[1], and tested for FT3, FT4, TSH and Anti TPO antibodies by Beckman Coulter chemi-luminiscence immunoassay platform. Urine iodine excretion (UIE) was measured by SandellKolthoff reaction. RI of free thyroid hormones and TSH were calculated in reference group of 117 women that was identified after application of stringent exclusion criteria. Prevalence of subclinical hypothyroidism (SCH), overt hypothyroidism (OH) and euthyroid hypothyroxinemia (EH) was ascertained in the total cohort and among those having at least one risk factor. This calculation was based upon RI suggested by ATA 2017[1] and Endocrine Society (ES) 2012 guidelines[2], RI from three studies from north India; and also upon RI established from present study.

RESULTS: Mean maternal age was 26.90 ± 3.74 years while median GA was 11 weeks. Among 317 women, 172 (54.3%) had ≥ 1 risk factor for thyroid dysfunction. The 2.5th, 5th, 95th and 97.5th centiles of TSH in the reference group were 0.51, 0.70, 4.78 and 5.72 mIU/ml respectively. Based upon 5.72 mIU/ml as upper normal limit, case finding missed only 8 (2.5%) women with hypothyroidism. However, using upper normal TSH limit of 2.5 mIU/ml (ES guidelines) and 4.0 mIU/ml (ATA guidelines), case finding missed 168 (52.9%) and 70 (22.1%) women respectively. Prevalence of SCH, OH and EH based upon different RIs is shown in table 1.

CONCLUSIONS: RI (2.5th to 97.5th centile) of TSH in first trimester of pregnancy in the Kashmir valley is 0.51 - 5.72 mIU/ml. With this RI, case finding strategy misses only 2.5% women with hypothyroidism and is an effective way of screening. Extrapolating TSH RI from western guidelines on our population overestimates prevalence of hypothyroidism and portends poor performance of case finding strategy. Ideally, TSH RI must be specific for different Indian regions and assay platforms used.

Phenotypic and Genotypic Identification and Drug Susceptibility Pattern of the Yeast Strains Causing Blood Stream Infections in a Tertiary Care Hospital in Kashmir, India

Department of Microbiology, SKIMS, Soura, Srinagar

A B S T R A C T

AIMS/OBJECTIVES: Comparative study undertaken to evaluate different diagnostic modalities of yeast identification-Phenotypic(HiCrome Candida Differential agar-HCDA and VITEK-2 Compact system) and Genotypic methods-multiplex PCR(MPCR) with PCR-RFLP as gold-standard.

MATERIAL/METHODS: 110 yeast spp. isolated from blood cultures, 30 blood samples
from yeast positive blood culture bottles and 10 samples from patients with bacteremia were included.

RESULTS: As compared to PCR-RFLP, sensitivity, specificity and diagnostic accuracy of Vitek2 system was 97.17%, 99.62%, 99.21%; HCDA was 95.28%, 99.81%, 99.06% whereas MPCR was 91.51%, 99.26%, 97.98%. Most isolates (65.45%) were recovered from neonatal-ICU. C.albicans and C. parapsilosis showed 100% sensitivity to all antifungal drugs. Maximum resistance was seen to fluconazole (33.63%) followed by flucytosine (7.27%) and caspofungin (0.90%). Most of the fluconazole resistance was seen in C krusei (100%).

CONCLUSION: HCDA can be used for accurate identification of common Candida species from yeast positive blood culture bottles within 12 days. For yeast species growing as white colonies on HCDA, methods like VITEK-2/MPCR may be utilized. MPCR was found less sensitive than PCR-RFLP; with a lower diagnostic accuracy.

“Effect of Colon Care Bundle on Surgical Site Infection in Colorectal Surgeries”

Abdul Rashid Sheikh, Suja Afreen, and Prof. Aqueel Ahmad

ABSTRACT

BACKGROUND: Surgical site infections are third most common health care associated infections and disproportionally higher among patients following colorectal surgeries. Colon care bundle is an effective method of reducing SSI in colorectal surgeries.

AIMS AND OBJECTIVES: To analyse the effects of colon bundle care on surgical site infection and, to compare the results of the study with the control group whom we have not applied elements of Bundle and to identify major risk factors effecting SSI.

MATERIAL AND METHODS: This comparative study included all adult surgical patients who underwent elective type of colorectal surgeries in the department. The patients were divided into two groups, Bundle group in which elements of colon care bundle were applied. These elements include preoperative antiseptic cleansing, oral antibiotics for two days prior to surgery, intra-operative forced warm gown to maintain normothermia, postoperative oxygen inhalation for four hours. Another group was the Control group in which elements of colon care bundle were not applied. Bowel preparation using PEG and Enemas was done in all patients and 1 gm of injection cefoperazone was given within one hour of incision in patients of both the groups. All the data was collected on pre designed questionnaires. Patients were followed for 30 days for development of surgical site infection and identified using CDC, USA definition for SSI.

RESULTS: A total number of 272 patients were included in the study and divided into two groups. 150 patients were kept in bundle group and 122 patients in control group for
CONCLUSIONS: Colon care bundle is an effective method of reducing surgical site infection in colorectal surgeries. The results were comparable to other studies reported around the world. Age, smoking, diabetes, hypo albuminemia, pre operative chemoradiation were identified as independent risk factors towards development of SSI.

Management, Complications and Outcome of Acute Subdural Hematoma in SKIMS

Department of Neurosurgery, and Department of General and Minimal Access Surgery, SKIMS, Srinagar

ABSTRACT

BACKGROUND: Acute traumatic subdural hematoma (SDH) is one of the most devastating forms of traumatic brain injury (TBI), with mortality rates estimated between 40-60%.

AIMS AND OBJECTIVES: To determine the demographic profile of traumatic acute SDH, to study Clinical & radiological assessment at presentation and to study various modes of management, complications and outcome up to 3 months after trauma.

MATERIALS AND METHODS: The study was conducted in the department of Neurosurgery, SKIMS. On 150 patients diagnosed to have traumatic acute SHD admitted in emergency department. The demographic profile of traumatic acute SDH, Clinical & radiological assessment at presentation and various modes of management, complications and outcome up to 3 months after trauma were studied.

RESULTS: The study showed that acute SDH was most common in males in the age group of 21-30 year. Most common symptom was Loss of consciousness and commonest cause of head injury was road traffic accidents. GCS <8 at presentation was found in 73 (48.66%) patients. Most common pupillary abnormality found in our study was unilateral dilated pupil in 73 (48.7%) patients. Most of the patients (80%) of acute SDH underwent surgery and 20% of patients where managed conservatively. Most common postoperative complication during hospital stay was chest infection in 30% of patients. Out of 150 patients 50% patients died and 34.7% patients had good recovery. Mortality of patients with acute SDH increases when SDH Thickness and midline shift was >10 mm.

CONCLUSION: Traumatic acute SDH is a fatal condition despite all developments in neurosurgical interventions. GCS score, hematoma size, midline shift and associated brain injury are important parameters influencing mortality and morbidity. Other factors affecting mortality are age and time delay from admission to intervention.
Baseline Vitamin D as a Predictor of Mortality among Hospitalized Patients with Acute Exacerbations of COPD in an Endemically Vitamin D Deficient area in North India

Department of Internal Medicine and Department of Molecular Medicine & Immunology SKIMS, Srinagar

ABSTRACT

BACKGROUND: Conflicting data suggest that vitamin D reduces the risk of developing COPD and COPD exacerbations. Scant data is available regarding the vitamin D status in patients with COPD in India where vitamin D deficiency is rampant.

OBJECTIVES: We set out to study the role of baseline vitamin D on the outcome of acute exacerbation of COPD in terms of exacerbations, hospitalizations and mortality.

METHODS: In a prospective observational design, 147 consenting participants with AECOPD were recruited and serum vitamin D assessed at admission. The patients were followed for 3 months for treatment outcomes in terms of mortality, readmissions and exacerbations. Standard statistical methods were used to compare the results among those with sufficient and insufficient vitamin D status at baseline.

RESULTS: Out of 147 completely followed participants 113 (76.9%) were deficient in vitamin D [Mean±SD = 11.79±8.5 (normal 30-100 ng/ml)]. Patients with low vitamin D were found to have a significantly higher 90-day mortality than those with normal vitamin D status (p=0.42; Hazard ratio 4.8, p=0.032). No statistically significant differences were observed in rates of exacerbations or hospital admission.

CONCLUSION: Patients of AECOPD having baseline vitamin D deficiency at admission have a higher mortality than those with normal vitamin D level. Thus vitamin D level can serve as a prognostic indicator of the outcome of AECOPD. Larger studies are suggested to further study the association as also determine any role of vitamin D in the treatment of such cases.

Keywords: COPD, Vitamin D, Mortality, Hazard ratio.

Early Detection of Smoking Induced Lung Damage in Patients with Normal Spirometry: Evaluation with High Resolution Computed Tomography

Dept. of General Medicine, SKIMS Medical College & Dept. of Radio-imaging & Diagnosis, SKIMS, Soura

ABSTRACT

AIMS AND OBJECTIVES: To evaluate the possibility of detecting early chronic obstructive lung disease/smoking induced lung damage in current and former smokers having normal spirometry by using HRCT.
MATERIALS AND METHODS: The study was conducted at SKIMS and SKIMS MC Sgr in total of 64 subjects. Smokers were enrolled based on smoking history and classified on GOLD spirometric criteria after going through spirometry and with focus on GOLD O group. HRCT chest was done and results drawn.

RESULTS: Around 64% of smokers (current or former) had one or more respiratory related symptoms. Although within normal range, former smokers had a more fall in FEV1 and FEV1%. 12.5% and 4.7% of smokers with normal PFT had significant emphysema and significant airtrapping respectively on QCT measurements. There was a significant correlation between emphysema with age, pack years (>35) and sputum production. 12.5% of smokers had CT findings other than emphysema and air-trapping.

CONCLUSIONS: Although current and former smokers may have a normal spirometry, they have an early smoking induced lung damage, which if detected early may give an objective reason for the smoker to quit smoking and halt or reverse the progression of disease. In particular the smokers who are aged >60 or having smoked >35 pack years or with sputum production; are the targets who should undergo HRCT chest although they may have normal spirometry.

A Study of Paclitaxel Induced Acute Pain Syndrome: Prospective Study

Department of radiotherapy and department of Medical oncology, SKIMS, Srinagar

ABSTRACT

OBJECTIVES: To describe the incidence and characteristics of paclitaxel induced acute pain syndrome and assess the change in pain related to paclitaxel dose and number of cycle: at skims soura, a tertiary care hospital

MATERIAL AND METHODS: The study was approved by relevant ethics committee and was conducted in the department of Radiotherapy SKIMS Soura between August 2015 to June 2017. The Study was a prospective one in which we included the eligible patients scheduled to receive paclitaxel weekly or 3 weekly; alone or in combination with another chemotherapeutic agent Carboplatin. Details regarding acute Pain were collected and evaluated.

RESULTS: A total of 196 patients were included in our study, among them, majority of patients (n=150) received two drugs paclitaxel and carboplatin, and 46 patients received paclitaxel alone. Seventy patients out of 196, developed paclitaxel induced acute pain syndrome (P-APS), among them, majority of patient who developed P-APS, received combination of chemotherapy as compared to patients who received chemo radiation or paclitaxel alone. The P-APS was measurement on the basis of scoring provided by LANSS pain scale, majority of patients had pain score of less than 12. As far as nature of pain was concerned, we found that the commonest complaints were pinpricking (34.29%) and dull (22.8%) rather than burning (14%), numbness
experienced in the knees (44%) followed by in lower limbs (24%), hand (15%), feet (8%), and 4% in ankle.

CONCLUSION: The incidence and characteristics of pain is related to paclitaxel dose and number of cycles. Subsequent cycles of paclitaxel are having no effect on intensity of pain syndrome. Duration of pain increases if patients receive combination of Paclitaxel and carboplatin. Addition of radiation is having neither synergistic nor protective effect in our study.

Three Port Versus four Port Laparoscopic Cholecystectomy-A Randomized Prospective Comparative Clinical Study

Department of General surgery, SKIMS Bemina, Srinagar.

AIMS AND OBJECTIVES; To compare the outcome following, “Three-port and four-port laparoscopic cholecystectomy” at single centre in terms of, technical feasibility, safety of the procedure, operative time from the beginning of first incision till closure of the final wound, Intra-operative complications, conversion rate, Success rate, postoperative Pain score on visual analog scale, postoperative analgesic requirement, hospital stay, days to return to normal activity and cosmetic results.

MATERIALS AND METHODS ; The study, Three port vs four port laparoscopic cholecystectomy - A randomized prospective clinical study” was conducted prospectively in the department of surgery SKIMS Medical college Bemina Srinagar from July 2015 to March 2017. The study was performed on adult patients with ultrasound documented cholelithiasis, GB Polypsis or GB adenomyomatosis, admitted in the Department of Surgery Skims medical college Bemina for elective surgeries. The study comprised of 100 cases. Fifty were subjected to three port laparoscopic cholecystectomy and fifty were subjected to four port laparoscopic cholecystectomy.

RESULTS : Patients subjected to three port laparoscopic cholecystectomy had significantly less postoperative pain and needed lesser analgesia than the patients who were subjected to four port laparoscopy and also had better cosmetic results.

CONCLUSION: The three-port technique is as safe as the standard four-port technique and can be a viable alternative to four port cholecystectomy. The advantages of three port laparoscopic cholecystectomy are that it causes less pain, there is less analgesic need and leaves fewer scars.
Percutaneous Image Guided Drainage of Complicated Post Pancreatitis Collections: A Prospective Study

Department of Radiodiagnosis, Department of Surgical GE and Department of Gastroenterology, SKIMS

A B S T R A C T

AIMS AND OBJECTIVES: To analyze the therapeutic effectiveness of image guided drainage in complicated post pancreatitis collections in terms of symptom relief, reduction in size of collections on imaging and time required for resolution of collections and to assess procedure related complications.

MATERIALS AND METHODS: It was a prospective study conducted on 30 patients (18 males and 12 females) with acute pancreatitis who had symptomatic peripancreatic fluid collection/pseudocyst (e.g associated with fever, pain, enlarging size), large pancreatic necrosis with worsening clinical profile or those with pancreatic abscess. Percutaneous drainage of the collections was done under image guidance (USG or CT) and catheters were placed in situ using Seldinger technique. Patients were followed up to assess the time needed for clinical improvement, avoidance of surgery, length of hospital stay, and development of hospital complications. Treatment was considered successful if the patients improved clinically (subsidence of fever and local signs and symptoms), elevated counts were normalized and serial imaging showed resolution of collections.

RESULTS: Clinical and radiological improvement was achieved in majority of patients with acute peripancreatic fluid collections, pseudocysts and pancreatic abscesses but only in half of the cases with acute necrotic collections. Improvement was shown in 8 out of 10 patients with acute peripancreatic fluid collections and pseudocysts (80%), 5 out of 8 patients with pancreatic abscesses (62.5%) and in 6 out of 12 patients with acute necrotic collections (50%) and rest of patients required surgical procedures on follow up.

CONCLUSION: Analyzing various parameters of these 30 patients it was observed that percutaneous image guided drainage is a safe and effective technique in the management of complicated post pancreatitis collections and is associated with fewer procedure related complications and decreased mortality.

Spectrum of Biopsy Proven Renal Diseases at SKIMS, Findings and Clinicopathological Correlation

Department of Internal Medicine and Department of Nephrology, SKIMS, Soura, Srinagar

A B S T R A C T

AIMS & OBJECTIVES: To study the overall spectrum of biopsy proven kidney diseases, clinical profile of patients, histopathological findings of the biopsy specimens obtained and clinicopathological correlation.
MATERIAL AND METHODS: This study was a hospital based observational study. A total of 269 patients after the clinical assessment and base line investigations underwent USG guided kidney biopsy for different indications. The biopsy materials were subjected to histopathology and Immunofluorescence.

RESULTS: In our study of 269 patients, the most common indication for renal biopsy was nephrotic syndrome (63.2%) followed by subnephrotic range proteinuria with azotemia (24.9%), sub-nephrotic proteinuria (7.8%), systemic disease (3%) and post renal transplant azotemia (1.1%). IgA nephropathy was the most common histopathological diagnosis (23.8%) followed by Focal segmental glomerulosclerosis (20.8%), Membranous Glomerulonephritis (10%), Diffuse proliferative Glomerulonephritis (8.6%) and others (36.8%). Among eight diabetic patients who were subjected to renal biopsy, 5 patients were having non diabetic renal disease. Lupus nephritis was the commonest lesion (14%) followed by thrombotic microangiopathy (2.2%) in secondary glomerulonephritides.

CONCLUSION: Kidney biopsy is one of the cornerstones of nephrology practice, being an important means of diagnosing, prognosticating and guiding the treatment of many kidney diseases, especially glomerular diseases:

Evaluating Role of Genexpert in Diagnosing Pediatric Tuberculosis

Department of Neonatology & Pediatrics, Microbiologist, Intermediate Reference Laboratory Srinagar.

ABSTRACT

BACKGROUND: The diagnosis of paediatric tuberculosis remains a challenge worldwide due to lack of effective diagnostic tools; only 10-15% of paediatric. A new, rapid diagnostic method (Cepheid) Xpert MTB/Rif assay is an automated sample preparation and real time PCR instrument which was shown to have good potential as an alternative to current reference standard sputum microscopy and culture.

AIMS AND OBJECTIVES: To evaluating role of GeneXpert MTB/RIF in diagnosing pediatric tuberculosis.

MATERIALS AND METHODS: One hundred thirty seven children presenting with suspected TB were enrolled in Department of Paediatric medicine SKIMS Soura. 227 samples including sputum, gastric fluid, BAL, CSF, pleural fluid, ascitic fluid, lymph node aspirate, pus, peritoneal and pleural biopsies were tested by AFB smear, LJ culture and Xpert MTB/RIF. Patients were classified retrospectively using the standardised case definition into definitive, probable and no TB group.

RESULTS: When test results were aggregated by patient, the sensitivity of smear, Xpert and LJ culture against clinical diagnosis as the gold standard were 12.8%, 28.2% and 28.2% respectively. Specificity was 100%, 96%, 100% respectively. However, sensitivity
of geneXpert and smear in definitive cases (culture positive) was 77.3% and 45% respectively. Specificity was 93.9% and 100% respectively.

**CONCLUSION:** We demonstrated that the addition of GeneXpert to the paediatric diagnostic algorithm would increase the overall number of microbiologically detected cases. However, the most relevant finding of this study is that the use of the Xpert assay has the potential to shorten time to tuberculosis diagnosis and thus to treatment initiation. However, sensitivity of all tests remains unacceptably low. Improved rapid diagnostic tests and algorithm approaches for paediatric TB are still an urgent research priority.

**Comparison of Harmonic Scalpel Hemorrhoidectomy and Bipolar Hemorrhoidectomy**

Department of General and Minimal Invasive Surgery SKIMS, Srinagar

**ABSTRACT**

**AIMS AND OBJECTIVES:** The comparison has been studied on the basis of different parameters for each technique. These parameters include operation time; hospital stay; day of first bowel movement; pain expectation score; wound healing and satisfaction score.

**MATERIALS AND METHODS:** Our study was a prospective study comprising of 64 patients with grade 3 and grade 4 hemorrhoids. 31 patients underwent harmonic hemorrhoidectomy and 33 patients underwent bipolar hemorrhoidectomy. Patient evaluation included clinical history, complete physical examination including DRE, proctoscopy, sigmoidoscopy and baseline investigations.

**RESULTS AND CONCLUSION:** Advantages of harmonic scalpel hemorrhoidectomy include reduced operative time, intra-op bleeding, postoperative pain, reduced doses of analgesics postoperatively, excellent hemostasis and reduced amount of vapor released during the procedure. Disadvantages were prolonged learning curve and increased cost over the bipolar hemorrhoidectomy. For all these merits we recommend using Harmonic scalpel in hemorrhoidectomy surgery in patients with symptomatic grade III internal hemorrhoids and Grade IV hemorrhoids.

**The Treatment of Infected Non Union of Long Bones Using the Two Staged Masquelet Technique**

Post graduate department of orthopedics, Skims medical college, Bemina

**ABSTRACT**

**AIMS AND OBJECTIVES:** To assess the efficacy of the Masquelet technique for the management of Infected Non Union of long bones in terms of union, function and eradication of infection.
MATERIALS AND METHODS: The study was a prospective observational study with intervention conducted on patients admitted in Postgraduate Dept. of Orthopaedics, SKIMS Medical College Hospital, Bemina. A total of 30 patients with infected non-union of long bones were included in the study.

RESULTS: We obtained a union rate of 90%, with a mean time to radiological union of 43 weeks from the first stage. The mean bone defect reconstructed was 1.12 cms, and a mean time to full weight bearing of 20 weeks from the second stage of the procedure. Staphylococcus aureus accounted for the majority of the cases.

CONCLUSION: The Masquelet technique provides an effective alternative to the traditional methods of dealing with non-union including the Ilizarov methodology, primary autologous bone grating and vascular bone grafting.

Histopathological Spectrum of Endometrial Lesions in Patients Presenting with Abnormal Uterine Bleeding

Department of Pathology SKIMS, Medical College

AIMS AND OBJECTIVES: To study the histopathological pattern of endometrium in patients presenting with abnormal uterine bleeding at a tertiary care hospital in Kashmir valley SKIMS Soura and to compare the histopathological pattern of endometrium in women presenting with abnormal uterine bleeding in various age groups and to ascertain the underlying pathology responsible for such abnormal bleeding.

MATERIALS AND METHODS: It was a prospective study conducted in the Department of Pathology at the Sher-i-Kashmir Institute of Medical Sciences (SKIMS), Kashmir over a period of 1 and ½ years from June 2015 to November 2016. The Study Material included specimens consisting of Endometrial Samples (Endometrial curettage and biopsy) and hysterectomy Specimens.

RESULTS: A total of 150 endometrial curettages / hysterectomy specimens received during this period of 1 and 1/2 years were analyzed. Maximum number of patients were in the reproductive age group of 18-40 years. Maximum incidence of AUB was observed in reproductive age group. The common clinical presentation was abnormal uterine bleeding. The most common menstrual disorder was menorrhagia. Proliferative Endometrium was more common in reproductive age where as hyperplasia was more common in perimenopausal and post-menopausal women. All cases of endometrial carcinoma were noticed in age group of more than 50 years. The commonest endometrial pattern was Proliferative and Secretory Endometrium. Out of 150 cases 144 cases were benign whereas 6 cases were malignant.

CONCLUSION: In our Study, functional causes of Abnormal Uterine Bleeding (like...
proliferative and secretory endometrium) were much more common in reproductive age group whereas in perimenopausal and post-menopausal age group, organic lesions (like endometrial hyperplasia, endometrial carcinoma) were responsible for Abnormal Uterine Bleeding.

Compresion of Daclatasvir/sofosbuvir with Sofosbuvir/Ribavirin in the Treatment of Chronic Hepatitis C Genotype-3 Infection in Kashmiri Population

Department of Gastroenterology SKIMS, Srinagar.

BACKGROUND: Chronic Hepatitis C Viral (HCV) infection is currently a major global health problem leading to chronic liver disease and hepatocellular carcinoma. Direct Acting Antivirals (DAAs) has revolutionized the treatment of chronic hepatitis-C infection. Genotype-3 has the more aggressive nature and leads to increased risk of steatosis and hepatocellular carcinoma.

AIMS AND OBJECTIVES: To compare the SVR (Sustained Virological Response) of Daclatasvir plus Sofosbuvir versus Sofosbuvir plus Ribaverin in chronic hepatitis C genotype-3 infection in Kashmiri population.

MATERIALS AND METHODS: This study was conducted in Department of Gastroenterology, Sher-i-Kashmir Institute of Medical Sciences Srinagar over a period of two years from November 2015 to November 2017. It was an observational, Prospective, Open label, Hospital based study. All the patients of Chronic Hepatitis-C genotype-3 were included in the study. Patients were divided in two groups. Group-A: received Sofosbuvir (400 mg daily) with Ribavirin (weight based). Group B: received Sofosbuvir (400 mg daily) with Daclatasvir (60 mg daily). In Group-A, both cirrhotic and non-cirrhotic received 24 weeks treatment and Group-B, cirrhotics 24 weeks and non-cirrhotics 12 weeks treatment.

RESULTS: 90 patients were enrolled. Both males (n=45) and females (n=45) were in equal distribution. We observed 100% (51/51) SVR12 in non-cirrhotics who received Daclatasvir plus Sofosbuvir treatment regimen compared to 96.7% (29/30) patients who received Sofosbuvir along with Ribavirin. We observed SVR12 higher, 80% (5/4) patients of cirrhosis who received Sofosbuvir plus Daclatasvir along with Ribavirin as compared to 50% (4/2) the patients of cirrhosis who received Sofosbuvir plus Ribavirin treatment regimen.

Conclusion: Sofosbuvir plus daclatasvir in combination with ribavirin more effective than sofosbuvir plus ribavirin in cirrhotics of genotype-3 chronic hepatitis-C infection, however sofosbuvir and daclatasvir equally effective as sofosbuvir plus ribavirin in non-cirrhotics.
Contributing Factors on Lymph Node Yield after Surgery for Mid-low Rectal Cancer

Department of Internal Medicine and Department of Molecular Medicine & Immunology SKIMS, Srinagar

ABSTRACT

BACKGROUND: Colorectal cancer (CRC) is a malignant tumour of the digestive tract with high morbidity and mortality all over the world. In Kashmir, CRC represents third most common GIT cancer.

AIMS: This prospective study was conducted at SKIMS in the colorectal division of General and Minimal Invasive Surgery department to determine contributing factors affecting lymph node yield after surgery for mid-lower rectal cancers.

METHODOLOGY: The Study is Prospective one. The Inclusion Criteria include, Growth about 4-10 cm from anal verge with HPE documented adenocarcinoma and the Exclusion Criteria include a) Growth beyond 10 cms of anal verge. b) Patients subjected to Abdomino-perineal resection & c) Patients with histopathology other than Adenocarcinoma. The detailed history, clinical examination and baseline investigations were done including Specific investigations like -CEA levels, CECT, MRI and Colonoscopy with biopsy of the lesion.

CONCLUSION: Pre-operative CCRT and T-stage of tumour are both independent risk factors for decreasing lymph node retrieval while as tumours more distant from anal verge and with regional lymph node metastasis are associated with increased lymph node retrieval. Age, Gender and BMI of patient has no association with the same.

RESULTS: In our study we took 97 patients with mean age of 43.4 years and out of these patients 41% patients were in the age group of 20-40 years. Most of the patients that were diagnosed of rectal cancers were males contributing about 56.7% to the burden of disease. In our study most of patients had BMI less than 25 with mean BMI of 20.7. In our study we could not find any association between BMI on lymph node retrieval but lymph node retrieval was found to be more in patients with T3 and T4 stage, tumours more distant from anal verge, Pre-op CCRT was found to decrease the same.

A Study of Association of Anthropometric Parameters in Patients of Breast Cancer at Presentation

Department of Radiotherapy, SKIMS, Soura, Srinagar

ABSTRACT

AIMS AND OBJECTIVES: The primary aim of the study was to determine the association of breast cancer with respect to various anthropometric parameters at presentation.

MATERIALS AND METHODS: Newly diagnosed cases of breast cancer were taken and a
total of 150 cases were included after informed consent. Various parameters studied were height, weight, chest circumference, abdomen girth, thigh girth, arm span, BMI, abdominal and thigh skin fold thickness. All the variables were analysed statistically.

RESULTS: The mean age of patients was 44.53 yrs and 30 % were < 30 yrs and only 20 % were above 70 yrs of age. Majority of the women were between 31-50 yrs age group. Most of the pts were stage III pts. 43.3 % were ER/PR positive and 22.7% were TNBC. Majority of the pts were in the height range of 146-155 cms with mean weight of 61.53 kgs. 36.7 % had BMI above 23 and 29.3% had BMI above 28. 32.7 % of pts had chest circumference between 95.01-105.00. Waist circumference was above 100 cm in 36.75 % and 24.7 % had above 90 cms.

CONCLUSIONS: We observed that higher abdomen circumference, chest circumference were associated with increased risk of premenopausal and postmenopausal breast cancer with increased luminal types and triple negative breast cancers in our subset of population.

Outcome Analysis of Nonoperative Management for Blunt Trauma Abdomen with Solid Organ Injury in Children

ABSTRACT

BACKGROUND: Nonoperative management (NOM) for blunt solid organ Injury (BSI) is not hundred percent safe and is deemed to fail in 2% to 33% of cases. It is currently recommended only in institutions with robust infrastructure for patient monitoring. Besides, the role of NOM is still being evaluated in high grade solid organ injuries and simultaneous multiorgan injuries. Studies are also being carried out to predict the failure of NOM.

AIMS AND OBJECTIVES: to study the outcome of NOM in BSI especially with respect to CT grade of injury, blood transfusion requirement and multiorgan injury.

METHODS: Sixty four patients with BSI, who were ≤ 16 years, were prospectively studied from Sept 2015-Sept 2017. Patients > 16 years, with penetrating injuries, with severe head and chest trauma and those having documented hollow viscus injury were excluded.

RESULTS: Mean age of the patients was 7.05 ±3.9 years. The average pre-hospital time was 8.8±3.5 hours. Liver was the injured in 26, spleen in 12 and kidney in 10. Simultaneous multiple solid organ were involved in 6 patients. The mean grade of injury was 2.71 in liver, 4.33 in splenic and 3.06 in renal trauma. Blood was transfused in 20 (31.25%) patients with initial Hb, Hct, CT grade and hypotension significantly predicting the need for transfusion. Sixty (93.7%) patients were managed successfully by NOM. However, four (6.3%) patients needed surgery: two for hemodynamic instability and other two patients for peritonitis.
CONCLUSION: With the adoption of the standardized treatment protocol NOM of blunt abdominal trauma with solid organ injury in pediatric patients is highly successful (93%). NOM was also successful in multiorgan injury.

Analysis of Primary Temporal Lobe Tumors of Brain by Histopathology Crush Cytology and Imaging: A 12 Year Study in a Single Tertiary Care Centre (SKIMS).

Department of Pathology & Department of Neurosurgery SKIMS Soura

ABSTRACT

AIMS AND OBJECTIVES: To study the prevalence of primary temporal lobe tumors of brain and to study the histopathological and cytological diagnostic pattern and correlate with MRI findings.

MATERIAL AND METHODS: A 12 year study conducted in a single tertiary care hospital. All cases of temporal lobe tumors suspected clinically & by imaging & all age groups were included and Cases with a known primary malignancy elsewhere or established cases of brain metastasis, ischemic or infective pathology were excluded. For crush smear, fresh specimens were received, smears prepared & stained. For histopathology the specimens were transported in 10% formalin to the pathology laboratory. MRI reports were collected from patients and previous medical records (MRI 1.5T SIEMENS).

RESULTS: The total number of cases in our study was 206. Prevalence was 19.07% and mean age was 39.6±16.46 yrs. The male to female ratio was 2.03:1. Most of the tumors on MRI were contrast enhancing with heterogeneous enhancement seen in 54.85% cases and were predominantly solid-cystic (41.74%). GBM was the most common histopathological subtype in our study, followed by PXA and glioneuronal tumors. Crush cytology analysis described tumors predominantly as high grade gliomas (29.1%) and low grade gliomas (9.7%). The overall diagnostic accuracy of crush cytology when compared to HPE diagnosis was 87.37%. The majority of histological subtypes correlated positively with the radiological findings, overall diagnostic accuracy was 92.23%.

CONCLUSION: The effective use of pathology in the management of CNS tumors requires firm diagnostic criteria & classification which are essential for accurate communication between pathologist and clinicians. Present study is a humble attempt towards this.
Prevalence of Nephropathy in Newly Diagnosed Type 2 Diabetes Mellitus Patients Attending a Tertiary Care Centre

Department of Internal Medicine, and Department of Endocrinology, SKIMS, Srinagar.

A B S T R A C T

AIMS & OBJECTIVES: To determine the prevalence of diabetic nephropathy (albuminuria) in newly diagnosed type 2 diabetes mellitus patients and to assess the probable risk factors or relation with age, sex, BMI, hypertension, HbA1c levels and lipid profile.

MATERIAL & METHODS: We studied 155 newly diagnosed Type 2 Diabetes mellitus patients in our cross-sectional study. After the history, general physical examination and anthropometry, various biochemical investigations were carried out viz. KFT, plasma blood sugars, lipids and HbA1c. The detection of microalbuminuria was done by Micral Test (dipstick, Roche Diagnostic) method in a random spot urine sample. Microalbuminuria was diagnosed if the urinary albumin excretion was ≥20 mg/L of urine.

RESULTS: The overall prevalence of nephropathy was 32.9% (51/155). There was significant association of albuminuria with the increase in age of the patients, high blood pressure, increased BMI, high glycated haemoglobin, high fasting plasma glucose, and dyslipidemia. Retinopathy and neuropathy also showed a statistically significant association with nephropathy in our patients.

CONCLUSION: A relatively high prevalence of microvascular complications at the time of diagnosis in our study reconfirms that evaluation for these complications must be done at the time of diagnosis in all patients.

Predictive Value of Non Invasive Parameters for Detection of Esophageal Varices in Patients of Liver Cirrhosis

Department of Gastroenterology, SKIMS, Soura, Srinagar

A B S T R A C T

AIMS AND OBJECTIVES: To study predictive power of non invasive parameters for detection of esophageal varices in patients of liver cirrhosis, Platelet count, APRI score, Splenic size (AP Diameter), Portal vein diameter, FIB -4 SCORE, LOK SCORE, PLT/SPLENIC(AP)Diameter ratio and AAR ratio (AST/ALT).

MATERIALS AND METHODS: The study was conducted at SKIMS in Department of Gastroenterology, total of 142 patients enrolled. Patients with first time detected CLD with features of portal hypertension were enrolled.
RESULTS:

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CONCLUSIONS: Even though these variables are clearly preferable to patients, none is comparable to UGIE in terms of sensitivity and specificity in prediction of esophageal varices on initial endoscopy. However, they can pinpoint patients requiring closer follow-up after initial endoscopic screening is negative for varices.

Iron Profile in Patients with Heart Failure

Department of Internal Medicine, Cardiology and Clinical Hematology SKIMS, Soura, Srinagar

ABSTRACT

AIMS AND OBJECTIVES: To Study the Iron Profile in Patients with Heart Failure

MATERIAL AND METHODS: This was a prospective study, where we studied 120 patients of Heart failure and 202 controls. Apparently healthy volunteers well matched with age, sex and dietary habits were taken as controls. Iron Profile was studied by measuring serum iron, serum ferritin, total iron binding capacity, and transferrin saturation (TSAT). Iron deficiency was defined as a serum ferritin level < 20 ng/dl and serum iron < 50 ug/dl or normal serum ferritin with transferring saturation < 20%.

RESULTS: Nearly one third of the patients with heart failure had anemia and iron deficiency each (36.7% and 31.7%) respectively. Iron deficiency was more among anemic patients as compared to non-anemic patients (61.4% Vs 14.5%, P value <0.001). Both anemia and iron deficiency were more prevalent in heart failure with reduced EF as compared to heart failure with preserved EF (65.9% Vs 34.1% & 45.2% Vs 17.2%) respectively. Iron deficiency was significantly associated with worse clinical presentation and poor quality of life, independent of presence of anemia.

CONCLUSION: Iron deficiency is common in patients with chronic heart failure, relates to disease severity, and is a strong and independent predictor of outcome. In this study, iron deficiency appears to have greater predictive power than anemia.
Incidence of Conduction Disturbances in Acute Myocardial Infarction-A Hospital Based Study

Department of Internal Medicine, Department of Cardiology, SKIMS, Soura, Srinagar

A B S T R A C T

AIMS AND OBJECTIVES: To determine the overall incidence and the pattern of conduction disturbances in AMI. To study the relation between site of infarction and the type of block. To study the hospital course and the mortality of patients with conduction disturbances in AMI. To study any correlation between the pattern of conduction disturbances and coronary angiographic findings.

MATERIALS AND METHODS: This was observational study done at SKIMS in department of Cardiology. A total of 429 consecutive patients of acute MI from August 2015-july 2017 were evaluated by detailed history, clinical examination, routine investigations and observed for conduction disturbances.

RESULTS: Our study was having 35(8.1%) cases of bundle branch block and 45(10.48%) of Complete AV bocks. In our study blocks involving the bundle branches were more common in anterior infarction but blocks at the atroventricular node level occurred almost exclusively in inferior infarction. This association was statistically significant (p<0.001). Overall conduction defects (49 out of 89) were more common (55.05%) with inferior myocardial infarction. Patients with conduction disturbances had higher mortality rate as compared to other without conduction disturbances. As far as correlation between major vessels and conduction disturbances is concerned, it was statistically significant (p=0.003) between RCA and AV nodal block. RCA was the culprit artery in 50% of our patients with AV nodal block.

CONCLUSION: Most of the AMI patients were males. 89 (20.7%) patients of our study group constituted conduction disturbances.

Percutaneous Trans Hepatic Biliary Drainage: Left Lobe Versus Right Lobe in Relief of Malignant Obstruction

Department of Radio Diagnosis & Imaging & Department of Medical & Surgical Gastroenterology, SKIMS

A B S T R A C T

AIMS AND OBJECTIVES; To evaluate the usefulness of left lobe v/s right lobe PTBD in terms of relief of malignant obstruction and symptoms of same, Changes in mean laboratory data and to assess the complications of PTBD.

MATERIALS AND METHODS; A total of 31 elective patients who were referred to our department for PTBD were included in this study. After dividing patients into two groups, PTBD was performed either via right (subcostal or intercostal) or left-ductal (sub-
xiphoid) approach, on the basis of status of primary confluence, secondary confluence and atrophy of liver parenchyma.

**RESULTS:** The principle causes of jaundice in maximum number of patients was malignant obstruction due to GB carcinoma (35.48%), followed by hilar cholangiocarcinoma (32.25), metastases (22.58%), pancreatic/periampullary carcinoma (9.67%). There was a significant reduction in bilirubin, alanine transaminase and alkaline phosphatase levels after the procedure in both the approaches but the decrease was more in the right-sided approach. Only the decrease in bilirubin levels was statistically significant (p = 0.01). There was a decrease in serum albumin level as well which was attributed to progression of the disease and was seen more in right-sided approach. There was a significant decrease in symptoms after PTBD in about 68.8% patients in right-sided approach and 60% patients in left-sided approach. Both minor and major complications were more common in right-sided approach as compared to left-sided approach with most common complication being cholangitis.

**CONCLUSION:** PTBD causes a significant reduction in the bilirubin level, irrespective of the amount of liver drained or the type of drainage (external/internal). However, depending upon whether right or left-lobe approach is used, the outcome of the intervention in terms of clinical improvement, laboratory improvement and complications varies.

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**Association of Vitamin D Status with Carcinoma Esophagus and its Outcome**

Department of Radiotherapy, Department of Endocrinology, & Department of Clinical Biochemistry, SKIMS

**ABSTRACT**

**BACKGROUND:** Esophageal cancer continues to defy all treatment modalities available currently. The five year survival rate is 10-15%. Since there is no established risk factor for this dreadful cancer and the treatment outcome continues to be poor, we conducted this study to find out any association of vitamin D with this cancer.

**AIMS & OBJECTIVES:** To study vitamin D level in patients with carcinoma esophagus and impact of supplementing vitamin D 3 concurrent with treatment on the outcome of treatment with regard to quality of life, loco-regional control and overall survival.

**MATERIAL AND METHODS:** During June 2015 June 2016 a total of 165 cases and 142 healthy controls were enrolled in this study. Vitamin D levels were assessed in all the participants by ELISA method. Cases with vitamin D deficiency were supplemented during treatment and were followed up to six months.

**RESULTS:** Out of 165 patients 58.2% had deficient vitamin D level, 10.9% insufficient and 30.9% had sufficient vitamin D. Out of 142 healthy controls 66.2% had sufficient vitamin D level, 18.3% insufficient and 15.5 % had sufficient vitamin D. 87.9% had complete...
response on EGD and 54% on CECT chest of those cases who received vitamin D supplementation. Further the QOL was better in cases that had normal vitamin D levels or received vitamin D supplementation.

**CONCLUSION:** Vitamin D deficiency may not play significant role in development of esophageal cancer. However, vitamin D supplementation in deficient/insufficient patients during treatment seems to improve dysphagia, loco-regional control and quality of life.

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**Role of Stone-Size, Stone Density and Skin-to-Stone Distance by Non-Contrast Computed Tomography abdomen in Predicting Success of E.S.W.L for Renal Stones**

Department of Urology, SKIMS, Soura, Srinagar.

**ABSTRACT**

**AIMS & OBJECTIVES:** The aim of this prospective study is to evaluate the effect of CT characteristics of kidney stones like stone radio-density, stone size and skin-to-stone distance on the outcome of ESWL.

**MATERIALS & METHODS:** A total of 96 patients with solitary renal calculi ≤ 2.0 cm were selected to undergo ESWL using Dornier Compact Delta II lithotripter. The pre-procedure CT-characteristics of urinary stones like stone density; stone size and skin-to-stone distance were noted on NCCT-Abdomen. After ESWL patients were followed up with abdominal radiograph after 3 weeks. The outcome of ESWL was described in terms of number of shockwaves and number of sessions required to achieve stone clearance.

**RESULTS:** ESWL was successful in 92 of 96 (95.8%) patients. The groups of patients with stone density ≤ 750 HU & 751-1000 HU had 100% success rate and required a mean of 2417.86 ± 498.2 & 2881.92 ± 223.0 shockwaves respectively while patients with stone density ≥ 1000 HU had successful ESWL in 17 of 21 (81.1%) and required 3474.76 ± 54.83 shockwaves. The groups of patients with stone size 5.0-10.0 mm & 10.1-15.0 mm required a mean of 2347.88 ± 528.94 & 2941.88 ± 240.47 shock waves respectively. The patients with stone size 15.1-20.0 mm had successful ESWL in 24/27 (91.4%) with mean of 2887.41 ± 336.33 shock waves required. The group of patients with mean SSD ≤ 6.0 cm & 6.1-8.0 cms had 100% success rate with mean number of 2337.50 ± 551.87 & 2597.86 ± 501.35 shock waves required and the patients with mean SSD 8.1-10.0 cm had successful ESWL in 39/41 (95.2%) with mean number of shock waves required 2793.24 ± 334.05 while patients with mean SSD ≥ 10.0 cm had success in 20/22 (90.9%) mean number of shock waves required was 3171.09 ± 215.26.

**CONCLUSION:** The use of CT scan for determining the stone characteristics of urinary calculi helps to predict treatment outcome of ESWL. The stone density is more significant than stone size and skin-to-stone distance in predicting the stone clearance following ESWL.
Sentinel Lymph Node Biopsy in Breast Cancer

Department of General & Minimal Invasive Surgery and Department of Pathology, SKIMS, Srinagar

**ABSTRACT**

**AIMS AND OBJECTIVES:** To study the results of “Sentinel Lymph Node Biopsy”, sensitivity & specificity, in our setting and to validate the procedure of Sentinel Lymph Node Biopsy in Breast Carcinoma, at our centre Sheri-Kashmir institute of medical sciences (SKIMS), Kashmir.

**MATERIALS AND METHODS:** The study was conducted over a period of two years at SKIMS in 30 patients. Eligible cases were given peritumoural injection of dye (Fluorescence/Methylene blue) at 4-6 sites. The axilla was opened and the stained nodes identified. The nodes were removed and labelled separately and the routine planned procedure, mastectomy or lumpectomy, was carried on till completion. The sentinel nodes were sent for Haematoxylin & Eosin staining along with separately labelled axillary nodes and breast specimens.

**RESULTS:** Overall sensitivity of mapping the sentinel node was 100%; specificity was 25% and accuracy was 90%. Taking alone the cases in which methylene blue was used, the sensitivity was 100%, specificity was 100% and the accuracy was also 100%. On histopathology, we have found a diagnostic accuracy of 73%, with sensitivity of 66.67%, specificity of 78.57%, positive predictive value of 72.73% and negative predictive value of 73.33%.

**CONCLUSIONS:** Sentinel Lymph Node Biopsy is a standard procedure for the initial evaluation of metastatic spread to the axillary lymph nodes. The technique helps in reducing the amount of surgery but at the same time it maintains the standard of care. It reduces the overall morbidity & mortality. In our study, we have achieved good results which are similar to the previous studies accepted internationally, which are sufficient enough to validate the said procedure at our centre Sheri-Kashmir Institute of Medical Sciences (SKIMS).

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Study of Clinical Profile of LGA Nephropathy with Clinicopathological Correlation and Treatment Outcome at SKIMS

Department of General Medicine and Department of Nephrology, SKIMS, Srinagar

**ABSTRACT**

**AIMS AND OBJECTIVES:** To study the clinical profile of patients with IgA nephropathy, to study the histopathological findings in the biopsy samples, to establish the clinicopathological correlation and to evaluate for the treatment outcome after follow up of the patients.
MATERIALS AND METHODS: The study was conducted at SKIMS in Department of Nephrology. We assessed 106 patients who were followed up for at least 3 months, excluding those who presented with end-stage renal disease. The diagnosis was based on the presence of predominant mesangial IgA deposits. Patients received treatment as per KDIGO (Kidney Disease Improving Global Outcomes) 2014 guidelines and followed up for their response after 2 years.

RESULTS: Males constituted 62 percent of the patient and females 38 percent. Incidence was highest in the 3rd decade of life, with a mean age of 29 years. The predominant modes of presentation were edema, hematuria, and renal failure. Both microscopic and macroscopic hematuria patients constituted 80% of the patients. All of the pathological lesions except mesangial hypercellularity were associated with higher amounts of proteinuria and lower eGFR. 37% of the patients of nephrotic syndrome showed complete response. In nephritic syndrome, macroscopic hematuria, and asymptomatic urinary abnormalities it was 40%, 75%, and 68% respectively.

CONCLUSIONS: IgAN in this part of India is more common in the younger age group and majority presenting as acute on renal failure and on morphology showing a burnt out disease, with no specific treatment and many ending with ESRD, it can be considered as a serious medical problem.

Prospective, Randomised, Comparative Study of Inguinal Hernia Repair using Transabdominal Pre-peritoneal & Lichtenstein Techniques

ABSTRACT

BACKGROUND: Inguinal hernia, is the most common external abdominal hernia; repair of these hernias is one of the most commonly performed surgical procedures in the world.

AIMS & OBJECTIVES: To compare the outcome of inguinal hernia repair using TAPP & Lichtenstein Technique of mesh repair in terms of operating time, post-operative hospital stay, return to work, complications etc.

MATERIALS & METHODS: After applying inclusion and exclusion criteria 60 patients were randomly allotted to the two groups. The outcomes were compared with respect to pre-defined parameters.

RESULTS: In unilateral cases the operating time was greater in case of TAPP. In bilateral cases the operating time was greater in case of Lichtenstein group. The pain scores and post-operative hospital stay were significantly lower in case of the TAPP group in both bilateral and unilateral cases. The overall complication rate in the TAPP group was lower than in the Lichtenstein group, although the spectrum of complications was different. The patients returned to work earlier in the TAPP group in both unilateral and bilateral cases. Cosmesis was better in TAPP group and clinically occult contralateral inguinal hernias.
were identified in two patients in TAPP group

**CONCLUSION:** Both the techniques are safe and reliable. TAPP repair is associated with a lesser post-operative pain, earlier discharge from the hospital, earlier return to usual activities and less persisting pain. There is no significant difference in the complication rate between the two techniques but there are higher chances of serious complications in TAPP technique. There is no difference with regard to early recurrence amongst the two groups. With regard to cosmesis, TAPP has better outcomes. Occult hernias on contralateral side could be visualised and can potentially be treated in the same sitting in the TAPP.

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**30 Year Study of Clinicopathological Profile of Gastric Cancer in Kashmir a Single Institute Based Study**

Department of General and Minimal Invasive Surgery, SKIMS

**ABSTRACT**

**BACKGROUND:** Carcinoma stomach is the fourth most common cancer worldwide after lung, breast and colorectal carcinoma and is second most common cause of cancer related deaths.

**AIMS AND OBJECTIVES:** To study Clinicopathological profile of patients admitted with diagnosis of gastric cancer at SKIMS, to know which areas of Kashmir valley are affected most, to know factors responsible for high prevalence of gastric cancer in Kashmir, and to suggest measures for controlling this killer disease.

**MATERIAL AND METHODS:** This study was conducted in the department of Department of General and Minimal Invasive Surgery, SKIMS Soura retrospective from July 1987 to May 2015 and prospective from June 2015 to July 2017. Registry data was retrieved from July 1987 to May 2015 from departmental cancer. A total of 10425 patients who had histological documentation of gastric cancer were analyzed. Data was then analyzed for clinicodemographic information like age, sex, residence, dietary habits, tobacco consumption, association with H Pylori, alcohol intake, presenting signs and symptoms. Patients were staged on basis of imaging and operative findings.

**RESULTS:** There was steady rise in number of cases every year- in 1987 it was only 196 and in 2016, it was 585. Heartburn and epigastric pain was the comments symptom in 90% of patients. Disease was found two times more common in males than females. As for as geographical distribution is concerned disease was found more common in south Kashmir than north Kashmir. Intake of mutton and dried foods was seen in 100% patients. Adenocarcinoma was most common histological variant seen in 96% of patients. Most common site involved was antrum and pylorus as in 48% patients while as GE junction was involved in 15.4% patients.

**CONCLUSIONS:** Incidence of cancer stomach is increasing in this part of valley with
higher incidence seen in south Kashmir. Females are affected at younger age than males. Involvement of proximal stomach is showing an upward trend. We recommended mass screening programme in the state by which early gastric cancer can be picked up, which can improve the survival.

Serum Zinc Level In Simple Febrile Seizures

Department of Pediatrics and Neonatology, & Department of Clinical Biochemistry, SKIMS Soura.

A B S T R A C T

AIMS AND OBJECTIVES: To determine serum zinc level in children presenting with simple febrile seizures and compare with age and sex matched controls.

MATERIALS AND METHODS: The present study was a prospective case control study. A total of 100 infants and children aged between 6 months to 60 months fulfilling the inclusion criteria were included. The study comprised of 2 groups - Group A: Children with febrile seizures (50 cases), Group B: Children with only fever, but no seizures (50 controls). Serum zinc was measured by colorimetric method and compared among the groups using statistical methods.

RESULTS: There was no significant difference in sex, age, weight, height and head circumference between the two groups (P >0.05). There was no statistically significant difference between the groups regarding temperature at admission. Mean serum zinc level was 70.28 µgm/dl in cases and 117.82 µgm/dl in controls. It was significantly lower in cases compared to controls. Serum zinc level was less than 65 µgm/dl in 42% of cases and 10 % of controls and is statistically significant (p<0.05).

CONCLUSION: Serum zinc level was lower in children with simple febrile seizures as compared to children with acute febrile illness which were found to be statistically significant. Children with low serum zinc level are more prone to get febrile seizures than children with normal zinc levels.

Efficacy of Early Nasal CPAP without Surfactant for Respiratory Support in Preterm Neonates Less than 32 weeks of Gestational Age

Department of Pediatrics and Neonatology, SKIMS Soura

A B S T R A C T

Aims and objectives: To study efficacy of early nasal CPAP without surfactant for respiratory support in preterm neonates less than 32 weeks of gestational age and to evaluate the decrease in need for surfactant replacement therapy by comparing our data with previous two years data of surfactant administration by InSurE technique followed by nCPAP in neonates in the same age group.
MATERIALS AND METHODS: This was an observational trial where preterm infants less than 32 weeks of gestation fulfilling inclusion criteria were enrolled and put on nasal CPAP immediately after birth.

RESULTS: A total of 145 infants were enrolled in the study and the data was compared with 132 preterm infants less than 32 weeks of gestation who received surfactant by InSurE technique followed by nCPAP data from 2013-2015. The rates of the primary outcome differed significantly between the CPAP group and the surfactant group (lower rates of intubation and mechanical ventilation, shorter duration of ventilation and oxygen requirement and decreased need for surfactant requirement). However there was no difference between in the outcome of death and bronchopulmonary dysplasia between two groups.

CONCLUSION: The results of this study support consideration of CPAP as an alternative to intubation and surfactant in preterm infants.

Cost Analysis of Treatment Modalities for End Stage Renal Disease Patients at SKIMS

Department of Hospital Administration and Department of Nephrology, SKIMS.

ABSTRACT

OBJECTIVES: To Study material and manpower cost incurred on renal transplant procedure and calculate post-transplant cost per patient per month and to Study material and manpower cost of hemodialysis and peritoneal dialysis (CAPD) per patient per month

METHODOLOGY: This is a prospective study of one year done on patients admitted during the study period. The data was collected by interviewing patient and staff, by viewing patient’s records and by activity sampling and the data was analysed by IBM SPSS 20v.

RESULTS: It was observed that total mean cost for each (donor/recipient) combination including six months follow up in recipients was Rs 340838. The study showed monthly cost of hemodialysis per patient varied from Rs 27659.4 to Rs 24781 whereas in CAPD patients ranged from Rs 35032 to Rs 29427.

CONCLUSION: The study establishes that though first month cost in post kidney transplant is high but there is sharp decline till six months period. The mean monthly cost in hemodialysis and CAPD tend to remain same or increase with each passing month.
Evaluation of Bile Duct Injuries with Magnetic Resonance Imaging: A Critical Appraisal

Department of Radio Diagnosis, Department of Surgical Gastroenterology and Department of Medical Gastroenterology, SKIMS, Soura, Srinagar

ABSTRACT

AIMS AND OBJECTIVES: To study the types of bile duct injuries commonly encountered in clinical practice and to evaluate the accuracy of MRI/MRCP in bile duct injuries.

MATERIAL AND METHODS: Twenty-five patients (21 women and four men; mean age of 38.96 years; age range 18-70 years) with suspected bile duct injury as a result of open cholecystectomy (21 patients) and laparoscopic cholecystectomy (four patients) underwent MR Cholangiography. MR images were evaluated for bile duct strictures, transection injury, leaks, dilated IHBR, free fluid and bilioma formation. Bile duct transection injuries and strictures were classified according to Bismuth, Strasberg and Bergmans classification. Final diagnosis was made on the basis of findings at surgery and on Endoscopic Retrograde Cholangio-pancreatography.

RESULTS: The location of bile duct injury was accurately predicted in 23 cases. Out of 23 cases, the most common type of Bismuth injury was type III seen in 10 cases (40%), followed by type II in 9 cases (36%), type IV in 3 cases (12%), and type I in 1 case (4%). None of the patients showed type V injury and MRCP showed an intact biliary tree in 2 cases (8%). Out of these 2 cases, one shows cystic duct leak and another one CBD leak on ERCP.

CONCLUSION: MRCP is a useful diagnostic test in patients suspected to have bile duct injury after surgery. MRCP depicts the signs of stricture and transection injury accurately and displays the anatomy completely and accurately. The information derived from MRCP enables the radiologist to classify the type of injury and helps to determine treatment, whether endoscopic, percutaneous, or surgical.

Prevalence of Hepatitis C in Diabetes Mellitus

Department of General Medicine, Department of Gastroenterology, & Department of Endocrinology SKIMS

ABSTRACT

AIMS AND OBJECTIVES: To determine the prevalence of Hepatitis-C Virus in Diabetes Mellitus.

MATERIALS AND METHODS: The study was conducted at Sher-i-Kashmir Institute of Medical Sciences in the Department of Gastroenterology in collaboration with Department of Endocrinology from September 2015 to June 2017. A total of 303 diabetic patients and 303 healthy non-diabetic controls were recruited in the study. Serological testing for Anti-HCV was done by using third generation commercial enzyme-linked
RESULTS: Out of 303 diabetic patients, 26 (8.6%) diabetics were T1DM and 277 (91.4%) were T2DM. The mean ages of the cases and control groups were 51.8 years ± 13.90 and 50.2±11.45, respectively. Among cases, 121 (39.9%) were males and 182 (60.1%) were females. There were 142 (46.9%) males and 161 (53.1%) females in the control group. The mean duration of diabetes was 8.5 years. We found that none of the diabetic patients tested positive for Anti-HCV nor any controls tested positive for Anti-HCV.

CONCLUSION: Anti-HCV couldn't be detected in any of the diabetic patients. Thus patients with diabetes mellitus should not be considered at special risk of HCV infection.

Study Knowledge, Attitude and Practices Regarding Biomedical Waste Management among Healthcare Workers at a Tertiary Care Teaching Hospital SKIMS, Srinagar

Department of Hospital Administration, SKIMS

AIM AND OBJECTIVES: To study the knowledge and attitude, and observe the practices among Health Care Workers (HCWs) regarding biomedical waste management.

METHODOLOGY: A cross sectional study in prospective design conducted in different areas selected randomly, among the doctors, nurses, paramedics and sanitary staff, over a period of 1 year, using a semi-structured questionnaire and a check list. The data was retrieved from the answered questionnaires and checklists, analyzed statistically with the help of Statistical software SPSS v19.

RESULTS: It was observed that knowledge and desirable attitude was highest among the doctors, followed by nursing staff and least by sanitary staff. But practices were highest among the nursing staff, followed by doctors and least by sanitary staff.

CONCLUSION: The study in conclusion observed that knowledge regarding various aspects of biomedical waste was adequate among all cadres of Healthcare workers except sanitation staff. The attitude was also favorable among all staff except sanitary staff but compliance to practices wasn't adequate among all cadres of staff.
Characterization and Effects of Maternal Thrombocytopenia on Pregnancy Outcome in Kashmiri Women

Department of Obstetrics and Gynecology and Department of Internal Medicine
SKIMS Medical College and Hospital Bemina Srinagar.

ABSTRACT

BACKGROUND; Platelets are non-nucleated cellular fragments of megakaryocytes, they play a critical role in hemostasis. Thrombocytopenia is a common medical disorder and is defined as platelet count less than 150,000 /µl. It is second only to anemia as the most common hematological abnormality in pregnancy.

AIMS AND OBJECTIVES; To characterize the etiology of thrombocytopenia in pregnancy in Kashmiri women and to study the effects of maternal thrombocytopenia on pregnancy outcome in Kashmiri women.

METHODS; This prospective study was carried over a period of two years from July 2015-May 2017 in SKIMS Medical College Bemina after taking due clearance from the institutional ethical clearance committee. In this study, 778 pregnant women attending Department of Obstetrics and Gynecology, SKIMS Medical College & Hospital, Srinagar from July 2015 to May 2017 were included. Platelet count assessment was done through automated blood count analyzer along with routine antenatal hematological evaluation of the patient. All pregnant females attending the antenatal clinic of department of Obstetrics & Gynecology of SKIMS Medical College & Hospital in their third trimester with low platelet counts (count less than 150,000 /µl) were taken as cases and with normal platelet counts (count more than 150,000 /µl) were taken as controls.

RESULTS; Out of 778, 73 were found to have thrombocytopenia (platelet count < 1,50,000) giving a prevalence of 9.38 %. Seven hundred and five, age and race matched pregnant females with platelet counts more than 1,50,000 served as controls. A total of seven hundred and seventy eight cases delivered during the study. There were 24 cases of mild (32.87 %), 47 cases of moderate (64.38%) & 2 cases of severe (2.73 %) thrombocytopenia. The median (IQR) platelet count in mild was 120 (9), 96 (19) in moderate and 35 (0) in severe cases of thrombocytopenia. There were 44 cases (60.27%) of gestational, 17 cases (23.28%) of obstetric & 12 cases (16.43%) of medical causes of thrombocytopenia. Twenty one cases (47.7%) of gestational had mild, 23 cases (52.3%) had moderate and nil case (0%) had severe thrombocytopenia. Three cases (17.6%) of obstetric causes had mild, 13 cases (76.5%) had moderate & 1 case (5.9 %) had severe TCP. Among medical causes 11 cases (91.7%) had moderate & 1 case (8.3%) had severe thrombocytopenia. The incidence of complications (APH & PPH) was 8.2 % in cases and 3.97 % in controls, a difference that was statistically insignificant.

Conclusion; The prevalence of thrombocytopenia in pregnant Kashmiri females was found to be 9.38%. Most cases were due to the condition labeled as gestational thrombocytopenia. It accounted for 60.2% of cases. One important point concluded from the study was a statistically significant presence of liver function abnormalities in cases (42.5%) than in controls (23.4%), an area of further research.
Role Ambulatory Blood Pressure Monitoring in Treated Hypertensive Patients Having Normal Office BP

Department of Cardiology, SKIMS, Srinagar

**ABSTRACT**

**BACKGROUND AND OBJECTIVES:** Ambulatory blood pressure (BP) monitoring has become useful in the diagnosis and management of hypertensive individuals. In this study we tried to know the role of office and ambulatory BP in treated hypertensive patients.

**METHODS AND PATIENTS:** Prospective cohort of 561 treated hypertensive patients were enrolled in the study. Hypertension definitions were according to JNC 8 classification. Office BP readings and ambulatory BP monitoring was done according to defined protocol.

**RESULTS:** From a subgroup of 158 treated hypertensive patients 91 (58.2%) patients were having white coat hypertension (p value 0.00 Pearson chi square test). In a subset 408 patients 98 (24.3%) patients were having masked uncontrolled hypertension (MUCH). In addition there was very significant percentage of non-dippers and reverse dippers. In our study we found that office BP has a moderate to low specificity and sensitivity and low negative predictive value for overall control in treated hypertensive patients.

**CONCLUSION:** Ambulatory BP monitoring should be included in the management protocol of treated hypertensive patients, for the optimal BP control and prevention of target organ damage.

**Keywords.** Office BP, ABPM, White coat hypertension, MUCH

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Efficacy of Tranexamic Acid on Blood Loss and Quality of Surgical Field in Brain Tumour Resection Surgery

Department of Anaesthesiology and Department of Neurosurgery, SKIMS, Soura, Srinagar

**ABSTRACT**

**BACKGROUND AND AIMS:** The development of coagulopathy in the context of tumor resection is associated with poor results. Tranexamic Acid (TXA) is an antifibrinolytic that has been used to reduce blood loss intraoperatively. The purpose of this randomized, interventional study was to determine whether Tranexamic Acid is effective or not in the reduction of intraoperative bleeding in brain tumors resections.

**MATERIALS AND METHODS:** The study included 60 patients undergoing brain tumor resection surgeries. 30 patients each were randomly allocated to the study group and the
control group. Patients in the study group received tranexamic acid intravenous infusion. Patients in the control group received the same volume of saline. During surgery the blood loss was determined. Postoperative blood loss was measured for 24 hours. BOEZAART scoring scale was used to assess the quality of surgical field view and surgeon satisfaction in terms of bleeding. Amount of blood transfused and complications if any were recorded.

**RESULTS:** Perioperative blood loss was significantly higher in saline group compared to study group, with p value of 0.011 and 0.025 for intraoperative and postoperative blood loss respectively. Average drop in Hb and HCT were significantly higher in saline group with p values of 0.001. Quality of surgical field based on Boezaart scoring was better in tranexamic acid group (p<0.001). The mean fibrinogen levels in the tranexamic acid group were significantly higher (p<0.001).

**CONCLUSION:** The administration of TXA resulted in a significant reduction in blood loss, higher fibrinogen levels. However, there was no significant reduction in the requirement of intraoperative blood transfusion.

Keywords: intraoperative blood loss, neurosurgery, tranexamic acid.

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**Estimation of Vitamin D Levels in Rheumatoid Arthritis (RA) Patients and its Correlation with the Disease Activity**

Department of General Medicine, Department of General Medicine & Department of Immunology & Molecular Medicine, SKIMS Soura, J&K.

**ABSTRACT**

**AIMS AND OBJECTIVES:** To estimate Serum 25-hydroxyvitamin D [25(OH) D] levels in rheumatoid arthritis (RA) patients, compare the levels measured in rheumatoid arthritis (RA) patients with age and sex matched control subjects and to correlate the serum 25- hydroxyvitamin D [25(OH) D] levels with RA disease and its severity.

**MATERIALS AND METHODS:** The hospital based prospective case control study was conducted at Sher-I-Kashmir Institute Of Medical Sciences (SKIMS), Soura over a period of two years. 75 RA patients diagnosed as per 2010 ACR-EULAR criteria were taken up for study from the Rheumatology unit of General Medicine department SKIMS soura and the Department of General medicine, SKIMS MC bemina. 75 healthy age and sex matched control subjects were taken from general population. The disease severity in the RA patients was assessed by DAS 28 ESR SCORE. Estimation of serum 25-hydroxyvitamin D [25(OH) D] levels was done by chemiluminiscence in the Beckman-Coulter analyzer.

**RESULTS:** Overall 112 (74.66%) subjects among the study population had vitamin D levels either in the insufficient or deficient range, there was statistically no significant difference between the vitamin D levels among the cases of RA and the controls (p=0.676). However, among RA cases having high disease activity (DAS 28 >5.1), 35 of the 36 patients (97.2%) had vitamin D levels either in insufficient or deficient
range, which on comparison with those in remission or having low or moderate disease activity showed that the patients with high disease activity had significantly lower vitamin D levels, p value =0.002. The mean ± SD of vitamin D levels in the high disease activity group was 14.10 ±7.36 (ng/ml), which in comparison to those in remission or with low or moderate disease activity was significantly lower, p < 0.001. There was significant negative correlation between disease activity measured by DAS-28 score in RA patients and serum 25(OH) vitamin D level, Pearsons Correlation coefficient, r = -0.4217 (p=0.0002).

CONCLUSION: Vitamin D deficiency was seen in significantly higher number of patients in the high disease activity group and as such vitamin D level had significant negative correlation with the disease activity in RA.

Management of Non-Palpable Testis, an Evaluation of Various Surgical Techniques.

Department of Pediatric Surgery SKIMS

ABSTRACT

AIMS AND OBJECTIVES:

- To Study the profile of the patients with Non-Palpable undescended testis presenting to our hospital.

- To compare the outcome of various operative strategies in the management of Non-Palpable Un-descended testis, in terms of Testicular volume, and location.

- To formulate a strategy for the management of non-palpable un-descended testis in our setting.

MATERIALS AND METHODS: Our study was a combined prospective and retrospective observational study including prepubertal male children. Of the 526 patients diagnosed as cases of undescended testis, 98 patients (19%) with a mean age of 3.6 years had 116 non-palpable testis. patients underwent primary open orchidopexy (42 testis), staged open (24) or staged laparoscopic (37) Stephen fowler orchidopexy and orchidectomy (13) in case of non salvageable testis. The outcome of the surgical procedure was measured in terms volume using USG and position at a minimum period of 6 months after the procedure extending upto 1.5 years.

RESULTS: The success rate in our study was; Primary open orchidopexy = 83.3%. Staged open orchidopexy = 79.2% Staged laparoscopic orchidopexy = 81.1%. In our study the success rate in patients in whom printess manoeuvre was performed is 94%. Only 1 out of 18 testis atrophied. The sensitivity of USG in localizing non palpable testis was 79% and
is dependent of cooperation of child, abdominal wall thickness and experience of radiologist. Orchidometer measurement of testicular volume is subjective and insensitive to volume differentials relative to ultrasound. Ultrasound not only measures the actual testicular volume but also detects homogeneity and other paratesticular anomalies which are common associated with undescended testis.

**CONCLUSION:** In our study we observed that more study should be done on the role of Ultrasonography on localization of non-palpable testis. In our population the thickness of abdominal wall and cooperation of children favor more localization of testis. In our study we observed that most of intraabdominal testis are low in position. Therefore primary orchidopexy should be performed in these testis as it has better success rate than staged procedure. For low intra-abdominal testes, descend in one-stage without sectioning the vessels has a high success rate. For high intra-abdominal testes, the descend in two-stage seems to be the better choice. In our study we observed that Both open and laparoscopic approaches tend to have same success rate. Subtle variation in success rate depends on, experience of surgeon, age at surgery, location of testis (high or low), length of the pedicle gained.