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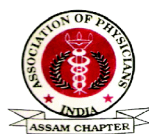
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ASSAM JOURNAL OF INTERNAL MEDICINE

Official Journal of Association of Physicians of India, Assam Chapter

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Editorial

ACUTE CORONARY SYNDROME IN YOUNG

S M Baruah

The incidence of coronary disease is positively associated with age. However, in recent years there has been an increased incidence of Acute Coronary Syndromes (ACS) in young adults, i.e. <40 years. It has been termed as **precocious ACS**. This increase has been attributed predominantly to lifestyle changes. Young patients comprise 3% to 10% of all cases of acute coronary syndrome.¹ Marcos R. Esteban et. al. quantified the magnitude of risk factors in these patients. They found that cocaine use was frequent and the prevalence of smoking, obesity, low HDL-cholesterol and diabetes was higher.² Moreover males were predominantly affected and presented with STEMI with underlying single vessel disease.² In another study by Laura Davidson et. al., the importance of intra-coronary thrombus formation in the absence of atherosclerotic changes was highlighted.³ This calls for evaluation of hypercoagulable states, such as Factor V Leiden, protein C and S deficiency, and endothelial fibrinolytic dysfunction among young patients with acute coronary syndrome. Young women with acute coronary syndrome have a higher 30-day mortality compared with young men, despite the protective effect of oestrogen.⁴ Subclinical coronary artery disease in young should be assessed. Newer methods like measurement

of pericardial fat volume (PFv) by non-contrast computed tomography (CT) in combination with CAC (coronary artery calcium) score would improve discrimination of coronary atherosclerotic plaques.

All the studies could relate unhealthy lifestyle with increasing ACS in young. Hence initiating public health interventions that target younger patients for more aggressive smoking cessation awareness, lipid management, antiplatelet therapy, screening of co-morbid conditions like diabetes mellitus, vasculitis, hypercoagulable states etc. should be emphasised.

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CLINICAL PROFILE OF ACUTE CORONARY SYNDROME IN YOUNG ADULTS

Alal Uddin¹, A K Das², H C Kalita³,
R K Kotokey⁴, R M Doley⁵

Introduction: Acute coronary syndrome is a common clinical condition encountered among younger age group in recent years. Young patients have different risk factors, clinical features and prognosis as compared to elderly patients. It constitutes an important problem because of the devastating effect of this disease on the more active lifestyle of young adults. **OBJECTIVE:** To assess the prevalence of risk factors, presenting features and in-hospital outcomes of acute coronary syndrome in patients below 45 years of age in both sexes

Materials and Methods : It was a hospital based prospective study carried out in 56 patients of 45 years and below with clinical, electrocardiographic and laboratory evidence of Acute Coronary Syndrome admitted in Assam Medical College and hospital between July 2017 to June 2018. The statistical test used was Chi-square test and Fisher's exact test.

Results : The mean age was 38.63 ± 5.89 years. Majority of the patients (78.57%) were male. The most common presenting symptom (94.64%) was chest pain. Smoking was most common (51.79%) risk factor. ST segment elevation MI was most common (91.07%) and anterior wall MI was the commonest type seen on ECG (46.43%). The most common events during hospital stay were LV failure (10.71%) and cardiogenic Shock (8.93%). The in-hospital mortality rate was 7.14%. Single vessel disease was most common (32.14%).

Conclusion : Commonest non-modifiable risk factor was male sex. The most important modifiable risk factor was smoking. The cessation of smoking would play a major role in preventing AMI in young adults.

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A STUDY OF HEPATIC DYSFUNCTION IN HEART FAILURE PATIENTS WITH SPECIAL REFERENCE TO HEPATIC FIBROSIS

Irfanul Haque Choudhury¹, Gunajit Kalita²,
B C Kalita³, R Dhanowar⁴

Introduction : Hepatic injury as a consequence of cardiac failure is relatively common, but often poorly recognized. The impact of cardiac dysfunction and cardiac hepatopathy on liver stiffness remains largely unexplored

Aims and Objectives : To study hepatic dysfunction in heart failure patients with special reference to hepatic fibrosis

Materials and Methods : A total of 150 clinically diagnosed patients of heart failure admitted in the Department of Medicine

and Cardiology of Assam Medical College and hospital. Exclusion criteria includes pre-existing liver diseases and patients taking hepatotoxic drugs or has undergone hepatobiliary surgery. Investigations included liver function test, prothrombin time, USG whole abdomen, ECHO, Fibroscan

Results and Discussion: Most of the patients were in the age group of 60-69 years. Hypertension was the commonest risk factors of heart failure followed by COPD. Serum AST was elevated in 64.6% of patients. ALT was elevated in 43.3% of patients and serum bilirubin was elevated in 67.3% of patients. Fibroscan of 150 cases of heart failure patients, 29.3% had LSM values in the range of mild or no fibrosis, 28.6% had significant fibrosis, 22% had severe fibrosis, 20% had in the range of Cirrhosis

Conclusion : In our study more than 60% patients show biochemical abnormality in LFT while more than 70% patients show LSM values in the range of significant fibrosis. So an early and prompt treatment of heart failure is necessary to prevent added morbidities caused by liver involvement.

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EVALUATION OF EFFECT OF SMOKING AND HYPERTENSION ON SERUM LIPID PROFILE

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Nilakshi Goswami²

Introduction : Cigarette smoking is a powerful cardiovascular risk factor and smoking cessation is the single most effective lifestyle measure for the prevention of a large number of cardiovascular diseases. Impairment of endothelial function, arterial stiffness, inflammation, lipid modification as well as an alteration of antithrombotic and prothrombotic factors are smoking-related major determinants of initiation, and acceleration of the atherothrombotic process, leading to cardiovascular events. Cigarette smoking acutely exerts a hypertensive effect, mainly through the stimulation of the sympathetic nervous system.

Objective : To determine the effect of smoking and hypertension individually on lipid profile and the cumulative influence of smoking and hypertension on lipid profile.

Materials and Methods : The study was carried out in the Department of Medicine, GMCH where the serum total cholesterol, HDL and LDL were estimated in 98 hypertensive patients, out of which 39 were smokers.

Observations : In our study, it was observed that in Hypertensive smokers, there was statistically significant (p value <0.05) increase in total cholesterol and LDL, and decrease in HDL levels.

Conclusion : Cigarette smoking, together with hypertension, has a larger effect on lipid profile than with patients who are hypertensive but non-smokers. Hence, there is an increase chance of atherosclerosis associated hypertension and smoking.

Keywords : Hypertension, Smoking, HDL, Total Cholesterol, HDL, LDL

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TOPICAL STEROID ABUSE : UNRAVELLING THE MURKY FACTS OF THE MENACE

Manali Dekaraja¹, Shyamanta Baruah²

Introduction : Topical steroids (TS) are one of the most commonly abused drugs in dermatological practice. This TS abuse (TSA) is rampant in India where TS are available over the counter from drug stores without a medical prescription. The ability of TS to quickly ameliorate signs and symptoms of skin disorders lies at the heart of such TSA.

Aim: The aim of this study was to find out prevalence and magnitude of TSA, clinico-demographic pattern, source of product abused and adverse effects of such TSA among patients attending dermatology OPD.

Methodology : A prospective analysis was done among patients clinically diagnosed as a case of TSA, based on prescription and/or medication evidence attending Dermatology OPD over a period of 12 months.

Results : Among 402 patients screened, majority of the patients were female (n=241) and were in the age group of 20-29 years. The major bulk of patient hailed from rural area (56.22%) and were unaware of the menace of TSA (86.82%). The main source of TSA were ascertained to be the pharmacist (38.31%) who dispensed the drug without a valid prescription. Tinea and acne were the most common indications of TSA as well as the most common adverse effect seen. Super potent TS (clobetasol propionate) in cocktail formulation was most commonly abused.

Conclusion : TSA has assumed epidemic proportion in our country. Irrational prescription of unethical steroid containing combinations must be avoided and dispensing of TS must be regulated.

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A STUDY OF KNOWLEDGE, ATTITUDE, PRACTICES AND PERCEPTION REGARDING USE OF SUNSCREEN AMONG MEDICAL AND NON-MEDICAL STUDENTS

Komal Agarwal¹, Shyamanta Baruah²

Introduction and Objectives : Sun exposure causes extensive damage to the skin and is responsible for aggravation of various photodermatoses like systemic lupus erythematosus. Therefore knowledge about sunscreens is imperative considering the prevalence of photodermatoses in our population.

The objective of this study was to explore the knowledge, attitude, practices and perception (KAP) of medical and non-

medical students towards usage of sunscreens and to identify the lacunae regarding use of sunscreens.

Materials and Methods : A cross sectional study was conducted using a pretested KAP questionnaire. Students in the 18-25 year age group were enrolled in the study. The data was collected and analysed using appropriate statistics. **RESULTS -** A total of 560 students (460 medical students and 100 non medical students) were recruited in the study, out of which 283 were males and 277 females. Only 280 (50%) students said they used sunscreens. For others (34.46%) the most common method to protect from sunlight was use of hats/umbrellas.

The most common influencing factor was media (23.6%, n=109) for medical students and family (30%) for non medical students. The most common reason to not use sunscreen was stickiness (38.9%) and it makes skin darker (20.6%). Most (32.8%) students while buying sunscreens chose it based on sun protection factor and brand (21.6%). The knowledge scores of medical students were significantly more than the non-medical students (p=0.0039).

Conclusion : The knowledge regarding sunscreens is significantly higher among medical students. More awareness needs to be disseminated about the advantages and correct use of sunscreens to ensure proper usage among one and all.

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A COMPARATIVE ANALYSIS OF CONTINUOUS AND PULSED THERAPY OF ITRACONAZOLE IN THE TREATMENT OF ONCHOMYCOSIS

Rosely Timungpi¹, Shyamanta Baruah²

Introduction : Onychomycosis is the most common onychopathy accounting for 50% of nail disease and is caused by dermatophytes and to lesser extent by non dermatophytes and yeast.

Objective : The primary objective was to compare the relative efficacy of continuous and pulsed dosing schedules of itraconazole in onychomycosis.

Methodology : A Prospective study is done in a total number of 102 Patients in the age group 15-60 years with clinical features suggestive of onychomycosis and positive findings in KOH examination with or without positive findings in fungal culture. The subjects were randomly divided into 2 groups- one receiving either oral itraconazole 200 mg once daily continuously for 3 months and the other itraconazole 200 mg twice daily for 1 week for 3 months. The patients were evaluated at 4, 8, 12 week interval and post treatment 24 week

Results : The mean age group is 34.1±14 years, male to female ratio was 2:1, As many as 65.2% had involvement of finger nails and 83.64% patients had Distolateral subungual onychomycosis (DLSO). KOH was positive was 75.48% and fungal culture positive with 30.6%. The most common isolate

identified was *Trichosporum* species. The clinical cure rates seen in continuous and pulsed schedule is 82% and 78% respectively. No significant adverse effect were noted in either schedule.

Conclusion : Continuous dose itraconazole is relative more effective than pulsed itraconazole in the treatment of onychomycosis, although the difference was not statistically significant.

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A DERMOSCOPIC STUDY OF PIGMENTARY DISORDERS IN SKIN OF COLOUR

Ziaul Haque¹, Shyamanta Baruah²

Introduction : The clinical diagnosis of pigmentary skin disorders is an ongoing challenge in dermatology. Dermoscopy enables the visualization of structures and colours beneath the surface of the skin, which are not routinely discernible to the unaided eye.

Aim : This study aims to establish the dermoscopic features consistently found in various pigmentary disorders in skin of colour and compare the findings with the available literature from rest of the country and abroad.

Methodology : This cross sectional, observational study was done in all consecutive patients attending the OPD of a tertiary care hospital with nascent pigmentary disorders.

Results : Among 157 patients examined, majority presented with hyperpigmented disorders (74%). The hyperpigmented disorders in decreasing order of frequency and the feature most consistent with them are Melasma (reticuloglobular), Macular Amyloidosis (Hub & spoke), Periocular hypomelanosis (Brown pigmentation and reticular vessel), LPP (Hem like), PPD (Red globules, dot and patches) and EDP (Exaggeration of pigmentary reticular network). Similarly among the Hypopigmented disorders, Vitiligo (Nebulous pattern in unstable & Polka dot in stable Vitiligo) was the commonest followed by IGH (Petaloid) and Hypopigmented macule of Hansens (Microscaling; reduced size & number of white globules, vellus hair).

Conclusion : Most pigmentary disorders in skin of colour exhibit specific dermoscopic patterns that aid in their differentiation and accurate diagnosis. Dermoscopy can be a valuable tool to bridge the gap between clinical findings and invasive investigations.

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DIABETIC RETINOPATHY IN YOUNG TYPE 2 DIABETIC PATIENTS FROM UPPER ASSAM (PHENOINDY 2 STUDY GROUP)

A Gogoi¹, A Dutta², P K Dutta², D Ghosh³, S Kakati⁴, C S Yajnik⁵, A Ray⁶, P Dihingia⁷, A Boruah⁸, D Boruah⁹

Background : Diabetes is the single most important metabolic disorder, which affects the eye, and can structurally and functionally affect the entire ocular system. Diabetic Retinopathy (DR), one of the leading causes of reversible blindness in India and worldwide, has an overall worldwide prevalence of 35%. Indian studies have shown overall prevalence of 17.6% (CURES, Chennai), 18% (SNDREMGs) and 10.5% (Aravind Eye Study) and 5.1% in newly detected diabetics (CURES).

Aim : To study diabetic retinopathy in young (< 40 years age) type 2 diabetic patients from Upper Assam

Materials and Methods : 150 young (<40 years old) subjects (86 cases and 64 controls) attending AMCH were studied in 6 months duration from Sep 2017 to March 2018 for ophthalmological complications of diabetes. Proper clinical history, anthropometric measurements and examination for all complications were made. Eye examination were done by indirect Ophthalmoscopy and Slit lamp with 90D lens after proper dilatation and Fundus photographs were taken in Retinopathy Cases .

Results and Observations : Out of 86 young diabetic patients, nine (10.5%) had diabetic retinopathy. Six were males and three were females. One female had mild DR, four male and one female had moderate DR and two male and one female had severe DR. Seven (8.1%) patients had diabetic macular edema. Five patients had severe diabetic macular edema. Only two of these patients had prior records of DR, rest all of them were diagnosed during the study.

Conclusion : 10.5% of young type 2 diabetic patients from upper Assam had diabetic retinopathy with 8.1% having diabetic macular edema.

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A STUDY OF THE COMPLICATIONS OF TYPE 2 DIABETES MELLITUS IN A TERTIARY CARE HOSPITAL AND THEIR CORRELATION WITH HbA1C LEVELS

Debarun Choudhury¹, Prasanta Dihingia²

Introduction : Changing lifestyle and urbanization has caused an increase in the incidence of Type 2 Diabetes Mellitus in developing countries, including India. It has been estimated that India has the largest number of diabetics in the world, with a prevalence of about 40.9 million individuals. Measurement of glycosylated hemoglobin provides an objective, retrospective index of glycemic control and may even predict the development of complications.

Aims and Objectives : 1. To find the prevalence of complications

of type 2 diabetes mellitus.

2. To correlate the complications with the HbA1C levels.

Materials and Methods : This is single centre, observational study carried out in all diabetic patients admitted in Medicine Unit-5 of Assam Medical College and Hospital, Dibrugarh in the period from March 2016 to February 2018. Data were collected in a proforma which included particulars of the patient, duration of diabetes and the clinical features at presentation.

Results: Out of 289 patients studied, 181 were males and 108 were females with a mean age of 48 ± 11 years. Of these, 201 had evidence of retinopathy, 186 had nephropathy and 103 had neuropathy. Sepsis was present in 64 cases. It was found that those having HbA1C $\geq 7\%$ had at least one complication in contrast to those who had not developed any. Moreover, HbA1C correlated better than fasting plasma glucose in predicting complications including development of sepsis.

Conclusion : HbA1C may be a useful tool to predict hyperglycemic complications apart from its reflection of average glycemic status.

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BODY COMPOSITION IN RELATION TO DURATION IN YOUNG TYPE 2 DIABETES

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Introduction : Though Type 2 Diabetes is associated with obesity and Insulin Resistance, uncontrolled diabetes is associated with weight loss. The first line oral therapy for Type 2 Diabetes is Metformin, which also causes weight loss. This is expected to affect the body composition in relation to the duration and treatment in these patients.

Aim and Objective : We aimed to study body composition of various Young Type 2 diabetes patients in relation to their duration of the illness and of its treatment.

Materials and Methods : By taking proper consent we measured the body composition in 137 patients using DEXA and the anthropometric measurements were done using Harpenden's Caliper. All the data were analyzed using SPSS software.

Observation : 120 Diabetic patients (75 Male, 45 Female) were studied whose mean age were 31 years and mean duration of diabetes was 4 years. 33(27.5%), 16(13.3%), 21(17.5%), 13(10.8%), 37(30.8%) were diagnosed whose duration were less than 6 months, 6 months to 2 years, 2 years to 4 years, 4 years to 6 years and 6 years and above. The Body Fat mass was 13.8 ± 5.7 , 1.2 ± 7.2 , 18.8 ± 10.9 , 14 ± 6.9 , 15.5 ± 8.1 in diabetic males and 16.6 ± 8.4 , 21.9 ± 5.9 , 24 ± 7.6 , 17.4 ± 9.4 , 20.2 ± 7.7 in female counterparts in the above mentioned age groups. The VAT mass was found to be 0.6 ± 0.5 , 0.9 ± 0.5 , 1.1 ± 0.4 , 0.5 ± 0.4 , 0.8 ± 0.5 respectively.

Conclusion : Body fat composition showed an inverted U pattern with people newly diagnosed and those diagnosed for more than 6 years of age being thinner than rest of the population

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STUDY OF NEUTROPHIL-LYMPHOCYTE RATIO AS A SURROGATE MARKER FOR DIABETIC NEPHROPATHY IN TYPE 2 DIABETES

Ashutosh singh¹ Anup Kumar Das² Bipul Chandra Kalita³

Introduction : Diabetic nephropathy(DN) is a microvascular complication of diabetes and a leading cause of ESRD. DN is manifested as persistent albuminuria ($>300\text{gm}/24$ hour) with absence of other organic kidney diseases. Role of inflammation has been established in DN. NLR (Neutrophil Lymphocyte ratio) is a novel marker of chronic inflammation and has been studied in many cardiac and non-cardiac diseases.

Aim & Objective : To study the Neutrophil Lymphocyte ratio in Type 2 diabetes mellitus and its association with diabetic nephropathy.

Material and Methods : This is an observational cross-sectional study including 124 cases of type 2 diabetes mellitus. NLR was calculated by analyzing differential leukocyte count in complete blood count. DN was diagnosed by estimating 24-hour urine albumin supported with coexistence of diabetic retinopathy. eGFR (estimated glomerular filtration rate) was calculated using CKD-EPI Creatinine 2012 equation.

Results : Out of 124 cases 72 were males and 52 were females. 56 cases were having Diabetic Nephropathy and 68 were not. Mean NLR in cases without DN was 2.131 ± 0.35 and in cases with DN was 4.95 ± 1.37 . The difference was highly significant with p-value < 0.001 . The mean eGFR in cases without DN was 102.88 ± 11.86 ml/min/1.73m² and in cases with DN was 20.07 ± 8.19 ml/min/1.73m². The difference in eGFR was significant with p-value < 0.001 .

Conclusion : This study shows that there is significant difference in NLR in Diabetic patients with and without DN establishing its role in predicting nephropathy in diabetics. Therefore, Neutrophil lymphocyte ratio may be considered as a surrogate and prognostic marker of Diabetic Nephropathy.

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EVALUATION OF RISK FACTORS OF PERIPHERAL NEUROPATHY IN TYPE 2 DIABETES MELLITUS PATIENTS WITH SPECIAL REFERENCE TO VITAMIN B12

Dharmishtha Ashis Basu¹, S L Das², Binod Sharma³

Background : Diabetic peripheral neuropathy (DPN) is the dysfunction of peripheral nerves attributed to chronic hyperglycemia after excluding other causes. Vitamin B12 deficiency is a potential comorbidity that is often overlooked. Potentially reversible vitamin B12 deficiency induced neuropathy may be inappropriately labelled as diabetic peripheral neuropathy.

Objective : To study the risk factors of peripheral neuropathy in type 2 diabetes mellitus patients with special reference to vitamin B12 deficiency.

Method : 162 cases were included over a period of 1 year. After a detailed history and examination, severity of peripheral neuropathy was assessed by Toronto Clinical Scoring System. Presence of DPN was confirmed by Nerve Conduction Study. Vitamin B12 estimation was done by ELISA technique.

Result : DPN was found in 35.18% of patients. Longer duration of diabetes, poor glycemic control, higher daily dose and duration of metformin use, height of patients, smoking, low HDL and vitamin B12 deficiency were found to be risk factors. 21.05% of patients with DPN were vitamin B12 deficient. Mean vitamin B12 in patients with DPN was 460.09 ± 264.07 pg/ml which is significantly lower than those without DPN (580.27 ± 255.31 pg/ml; $p < 0.01$).

Conclusion : Vitamin B12 deficiency is found to be a potential comorbidity in type 2 diabetes mellitus patients and hence regular monitoring of its serum levels and supplementation must be considered especially in the patients on metformin therapy.

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COMPARATIVE STUDY OF TYPE 2 DIABETES MELLITUS COMPLICATIONS AMONG MALE VERSUS FEMALE PATIENTS ADMITTED IN MEDICINE UNIT 2 OF ASSAM MEDICAL COLLEGE, DIBRUGARH IN THE YEAR 2018

Batjuban Geoffrey Myrthong¹, A K Das²

Background : The prevalence of diabetes (DM) is constantly increasing worldwide at an alarming rate. According to the International Diabetes Federation in 2015, an estimated 415 million people globally were suffering from this condition. Complications of DM account for increased morbidity, disability, and mortality and represent a threat for the economies of all countries, especially the developing ones. The steep rise of type 2 diabetes mellitus (T2DM) and associated complications go along with mounting evidence of clinically important sex and gender differences.

Methodology : Complications of Type 2 Diabetes mellitus (Macrovascular/ Microvascular / Miscellaneous) over a period

of 12 months in Medicine unit 2 . Fasting Blood sugar, Postprandial blood sugar, Hba1C , Fundoscopy , USG , Renal function test ,ECG, ECHO ,etc. used for the diagnosis and detection of complications in type 2 DM.

Results : Diabetic Nephropathy has been found to be the most complication in both male and female patients with a slightly higher preponderance towards male population. CVA has been found to be more common in the female population.

Conclusion : Gender is a fundamental biological factor which plays a key role in the regulation of homeostasis, manifestations, clinical picture and management of type 2 Diabetes mellitus.

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BODY FAT COMPOSITION IN YOUNG TYPE 2 DIABETES FROM UPPER ASSAM

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Introduction : Type 2 diabetes mellitus is closely linked to the epidemic of obesity. Difference in the body fat distribution between diabetics and non diabetics has been recognized from several decades. Both central and upper body adiposity are associated with high rates of T2DM and abdominal fat is a significant predictor of insulin resistance and visceral fat is the most important factor.

Aim and Objective : We studied the fat deposition in various parts of the body in young type2 diabetes and correlated them with obesity and to compare the same with the healthy controls.

Materials : The study consisted of total 229 subjects (≤ 40 years age) coming to Assam Medical College and Hospital, out of which 116 were cases and 113 were controls. The fat distribution various body parts were measured using Dual-Energy X-Ray Absorptiometry (DEXA). The statistical analysis of the collected data was done with the help of SPSS software.

Result : Among the total subjects, 59.4% were males and 40.6% were female. Among them 50.6% were diabetics and 49.3% were healthy controls. The Visceral fat volume was 1091 ± 632.6 cm³ and 898 ± 538 cm³ in diabetic males and healthy males respectively and 853 ± 512 cm³ and 551 ± 318 cm³ in the female counterparts. The upper limb fat was 1.7 ± 0.6 kg and 2.3 ± 0.9 kg in diabetic males and females, compared to 1.7 ± 0.6 kg and 2.3 ± 0.7 kg in healthy controls. The lower limb fat was 4.4 ± 1.6 kg and 6 ± 2.4 kg in diabetic males and females, compared to 5 ± 1.6 kg and 6.9 ± 1.9 kg in healthy controls. The trunk fat was 10.2 ± 4.6 kg and 12 ± 5.2 kg in diabetic males and females compared to 9.8 ± 3.9 kg and 10.9 ± 3.8 kg in healthy controls.

Conclusion : Visceral Fat and trunk fat correlates more than fat in rest of the body with Insulin Resistance and Type 2 Diabetes Mellitus.

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EVALUATION OF NERVE CONDUCTION STUDY IN SUBCLINICAL NEUROPATHY IN TYPE 2 DIABETES MELLITUS

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P Sonowal⁴, R K Kotokey⁵

Introduction : The Diabetic Neuropathies (DNP) are among the most common long term complications of diabetes. Most common among the DNPs are chronic sensorimotor distal symmetric polyneuropathy which frequently presents with distal sensory loss and pain, but up to 50% of patients do not have symptoms of neuropathy and termed to have subclinical neuropathy. Nerve conduction study can assess the ability of peripheral nerve to conduct electrical impulses and its use in quantitative confirmation of DPN is well established. However early detection of neuropathy can help in the better understanding of the pattern of pathophysiological changes as well as in controlling the crippling illness like peripheral neuropathy.

Objectives : 1. To evaluate nerve conduction study as a tool for diagnosis of subclinical polyneuropathy in patients with type 2 Diabetes mellitus.

2. Early detection of Diabetic neuropathy in patients who are asymptomatic.

Material and Methods : A hospital based unmatched case-control study was conducted on 60 cases and 60 controls admitted in Aditya Diagnostics & Hospitals from 1st October 2016 to 30th September 2017. Cases with Diabetes and otherwise healthy controls were taken according to the inclusion and exclusion criteria and NCS was conducted on them, and results were compared on the basis of latency, amplitude and NCV.

Results : The mean age of cases was 57.5 ± 8.8 while that of controls was 59.6 ± 8.9 . 84% cases with abnormal NCS were in age group of 61-70 years. Male to female ratio is 0.86:1. 100% cases were found to have abnormal NCS who had diabetes for a duration of 15-20 years and HbA1c ranging e^{10} . Among the 60 cases abnormal NCS findings were observed in 81.66% cases. Among the 60 controls, no abnormality in NCS was found in any subject. 65% cases showed both motor and sensory nerve involvement while 11.66% showed pure sensory nerve involvement and 5% showed pure motor nerve involvement. Sural nerve was found to be affected in 71.38% cases, followed by ulnar sensory 65%, ulnar motor 61.42%, posterior tibial 61.42%, median sensory 58.1%, common peroneal 53.12% and median motor 46.48%.

Conclusion : This study concludes that Subclinical neuropathy was demonstrated in 81.66% of cases with 65% cases showed both motor and sensory nerve involvement. The most common nerve to be affected was Sural nerve. So all diabetic patients who are asymptomatic for neuropathy can be suspected to have subclinical neuropathy and therefore should undergo NCS for further confirmation. Subclinical neuropathy was found to have significant association with

the degree of hyperglycaemia, and has no significant association with age, sex and duration. Therefore, better glycemic control is required in patients to prevent further irreversible and clinical neuropathy.

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MICROALBUMINURIA IN TYPE 2 DIABETES MELLITUS- AN OBSERVATIONAL STUDY WITH CLINICO-BIOCHEMICAL CORRELATES

Dimpee Lahkar¹, A K Das², Bobby Duarah³

Introduction : More personal health care resources are estimated to be spent on diabetes than any other condition as many are not receiving recommended levels of health care. Complications usually are present at diagnosis of T2 diabetes, their frequency increasing over time. Moderately increased albuminuria or microalbuminuria is an indicator of diabetic nephropathy requiring routine screening and preventive measures.

Aim : To study the point prevalence of microalbuminuria in T2 Diabetes mellitus, and its correlation with their demographic profiles and different laboratory parameters.

Methodology : This prospective, one year observational study in AMCH, Dibrugarh included 200 T2 Diabetics. Microalbuminuria (30 – 300mcg/d) was estimated by Clinitek urine analyzer (Siemens), using ACR to measure the albumin level. Their demographic profile, Blood pressure, FBS, PPBS, RBS, HbA1c, serum creatinine, blood urea and serum triglyceride were correlated.

Results : 51.5%, (103 of 200, 61 male, 42 female) had microalbuminuria. HbA1c was $>6.5\%$ in 96.11% with microalbuminuria and 22.64% in those without. 76.69% of microalbuminuric patients had hypertension. Statistically significant correlation was found for duration of diabetes, PPBS, RBS, serum creatinine, blood urea, SBP, DBP and HbA1c.

Conclusion : T2 DM diabetes is common and is associated with microalbuminuria in our region which is an early indicator of diabetic nephropathy. Uncontrolled hypertension and hyperglycemia in majority are conspicuous findings in our study. Regular, stringent monitoring coupled with careful glycemic and blood pressure control should be adhered to to improve the quality of life, increasing life expectancy by way of preventing progressive diabetes related morbidity and complications like renal failure amongst others.

Keywords: Microalbuminuria, T2DM, diabetic nephropathy. ¹PGT, 3rd year, ²MD, Professor, Department of Medicine, ³MD, Associate Professor, Department of Pathology, Assam Medical College and Hospital, Dibrugarh

CORRELATION OF SKIN FOLD THICKNESS WITH BODY FAT COMPOSITION IN YOUNG TYPE 2 DIABETIC PATIENTS

S Sonowal¹, A Dutta², P K Dutta², S Kakati³, C S Yajnik⁴, A Boruah⁵

Introduction : Prevalence of obesity in India according to NFHS-2 (Second national family health survey) is accepted to rise along with emergence of type 2 diabetes in young. Prevalence of obesity varies in different states, from 4-6% in Bihar and Orissa to 30-35% Punjab and Delhi. Subcutaneous fat is an excellent indicator of obesity and we studied it in correlation to body fat composition in young type 2 diabetics in a tertiary health care centre of Upper Assam.

Aims and Objectives : To correlate skin fold thickness of various regions with body fat in young type 2 diabetics.

Materials and Methods : Young (<40 Years) type 2 diabetics and their matched controls attending Assam Medical college and hospital were selected for this study. After proper consent, skin fold thickness was measured in all using Harpenden Caliper (HSB-BI) in Biceps, Triceps, Subscapula and Suprailiac for 3 consecutive readings and mean values taken. Body composition was estimated using Jackson & Pollock equation. Statistical analysis was done using SPSS Software (Version 20).

Results and Observations : Out of 232 Subjects, 121 (52.2%) were diabetic and 111 (47.8%) were healthy controls. 137 (59%) were males and 95 (41%) were females. The mean body fat in diabetic male and female were 21.3% (± 7.18) and 32.4% (± 8.3) and in their healthy counterparts 20.4% (± 5.7) and 30.4% (± 6.5) respectively. Subscapular skin fold thickness was 20.4 (± 10.2) mm and 26.2 (± 12.4) mm in diabetic males and females 17.5 (± 8.8) mm and 21.4 (± 21.3) mm in their healthy counterparts.

Conclusion : Subscapular skin fold thickness correlates most with body fat in young diabetics and healthy controls, in comparison to biceps, triceps and suprailliac skin fold.

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A STUDY OF RATIO OF PLATELET COUNT TO SPLENIC DIAMETER AS A PREDICTOR OF OESOPHAGEAL VARICES IN CIRRHOSIS OF LIVER

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Introduction : Portal hypertension and oesophageal variceal development are among major complications of cirrhosis. The risk of bleeding from varices is very high. Therefore, periodic endoscopic screening is highly recommended for patients with liver cirrhosis for presence of oesophageal varices. In order to

spare the cirrhotic patients from the discomfort and risks of endoscopy, some studies have attempted to identify methods that non-invasively predict the presence of varices and risk prediction for bleeding.

Objectives : To study the platelet count to splenic diameter ratio in patients with cirrhosis of liver and its correlation with presence of oesophageal varices.

Material and Methods : A hospital based cross sectional, observational study was conducted on 114 diagnosed cases of cirrhosis of liver admitted in Aditya Diagnostics & Hospital, Dibrugarh from 1st Oct 2016 to 30th Sept 2017. Study group consists of hypertensive patients, both male and female above 13 years of age, and inclusion and exclusion criteria are applied in enrolling the study.

Results : The mean age of cirrhotics found to be 46.21 ± 11.46 , with male preponderance. The male to female ratio is 7:1. The cause of cirrhosis in 94.74% patients is found to be ethanol related followed by cryptogenic (3.51%). The prevalence of oesophageal varices is found to be 91.23%. Most of the cirrhotic patients were presented with Grade 2 varices (45.61%), followed by Grade 3 (26.32%) and Grade 1 (19.30%). It is observed that the mean value of platelet count were 183000.00/cumm ($SD \pm 43982.32$) in patients with oesophageal varices and mean value of 79028.85/cumm ($SD \pm 29655.12$) in patients without oesophageal varices (p -value- 0.0001). The mean value of platelet count/splenic diameter ratio were 1404.13 (± 283.89 SD) and 585.56 (± 220.19 SD) in patients without and with oesophageal varices respectively. Among these, patients with small varices had a ratio of platelet count/splenic diameter of Mean \pm S.D of 675.59 ± 195.74 and for large varices it is 363.48 ± 63.63 (p -value-0.0001). The area under ROC curve is 0.986 for platelet count/splenic diameter ratio at a cut off value of $d' 1052.63$, with sensitivity of 97.12% and specificity of 100%.

Conclusions : This study may conclude that there is high prevalence of oesophageal varices in patients with cirrhosis of liver. It was observed that as the platelet count to splenic diameter ratio decreases, the grade of varices increases. Being a routinely performed test in patients with liver cirrhosis and also easily feasible as well as easy to calculate, this test can be a promising tool in management of complications of cirrhosis in rural settings where specialist care is not available. Also, it can reduce burden over endoscopy units at referral centers. This ratio may be recommended to predict the presence of oesophageal varices and as a surrogate marker where endoscopic facilities are not available.

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A CLINICAL PROFILE OF ACUTE KIDNEY INJURY IN ACUTE GASTRO-ENTERITIS

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Background : Acute gastroenteritis is a common problem in developing countries like India. The most common complication of acute diarrhea is dehydration leading to hypovolemia and complications like acute kidney injury due to loss of electrolytes and solutes and antimicrobial injury.

Aims and Objectives : 1. To find out the clinical and biochemical profile of acute kidney injury in diarrheal patients
2. To determine the short term outcome of acute kidney injury in patients with diarrhea

Materials and Methods : This is a prospective observational study conducted from May to August 2018 at Gauhati Medical College and Hospital. We studied 68 patients admitted to medical wards who met the inclusion and exclusion criteria after obtaining the informed consent. The clinical and laboratory data were collected at admission and then on daily basis. Patients with an increased serum creatinine were evaluated by the AKIN criteria to be diagnosed as acute kidney injury.

Results and Observations : Majority of patients were above 50 years of age with a mean age of 53.50. A total of 68 patients were included in the study of which 46(67.3%) were males and 22 (32.3%) were females. 24 patients (35.2%) developed sepsis, 17 patients (25%) had oliguria, 29 patients (42.6%) had hypokalaemia, 31 patients (45.5%) had hyponatremia and 12 patients (17.6%) had hypernatremia. Mortality rate was 2%.

Conclusion : Thus, early detection and prompt treatment will bring down the mortality and better outcome in these patients.

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ENDOSCOPIC STUDY OF DYSPEPSIA WITH SPECIAL REFERENCE TO HELICOBACTER PYLORI

Anshu Kumar Jha¹, Prasanta Dihingia²

ABSTRACT : In our day to day practice we encounter many patients who present with dyspepsia. Approximately 50% of world's population is estimated to be infected with *Helicobacter pylori*. The prevalence of this bacterium is higher in developing countries when compared to developed countries. The objective of this study was to look at the upper gastrointestinal (GI) tract endoscopic findings in patients presenting with dyspepsia and the presence of *H. pylori* infection in those patients. It was a prospective study involving 73 patients over a period of 3 months visiting the outpatient department of Assam Medical College and Hospital for dyspepsia and meeting the inclusion criteria. Patients underwent upper GI endoscopy and tissue sampling for detection of urease enzyme production by *H. pylori*. 47 males and 26 females participated in the study with mean age of 39.6 years (SD – 12.10). 69% of study population tested positive for *H. pylori* infection by detection of urease enzyme produced by *H. pylori*. 37% of the study population had ulcer in stomach or duodenum as detected by upper GI endoscopy. This study shows that *H. pylori* infection is detected in a significant number

of patients presenting with dyspepsia with no other specific risk factors for acid peptic disease (eg: alcohol, smoking, usage of NSAID).

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CARDIOVASCULAR RISK IN FATTY LIVER DISEASE

Prajna Anirvan¹, Anup K. Das²

Introduction : Fatty liver disease is a public health problem in India. Up to 90% of overweight and obese, and 25% of non-obese people go on to develop fatty liver disease. NAFLD is a spectrum of disease where steatosis *per se* is benign, but steatohepatitis can progress to cirrhosis. Up to 50% of these patients die not directly because of hepatic dysfunction, but due to adverse cardiovascular events.

Objectives : To calculate the 10-year risk of cardiovascular disease (stroke, heart disease) in patients with fatty liver disease.

Material and Methods : It is a hospital based observational study on 2 groups of patients divided into steatosis and steatohepatitis. 2013 ACC/AHA Guideline for Assessment of Cardiovascular Risk algorithm was used to calculate the 10-year risk of cardiovascular disease.

Fatty liver disease cases (n:60) detected ultrasonographically were included in the study and divided into steatosis (n:30) and steatohepatitis (n:30). Elevated ALT >2x and raised hsCRP arbitrarily were taken as non-invasive markers for steatohepatitis (*Int J Res Med Sci. 2014 Nov, Bhuyan N et al*).

Results : The 10 year risk of cardiovascular disease in normal population is 7.5%. The 10 year risk is found to be statistically significant (pvalue < 0.001) in the steatohepatitis group compared to the other group with steatosis (with normal ALT and hsCRP).

Conclusion : The study shows that steatohepatitis is associated with increased risk for cardiovascular disease. Early intervention is required to stop the progression of steatosis to steatohepatitis to decrease the cardiovascular risk, as steatosis is usually asymptomatic. Lifestyle modification should be the mainstay of treatment.

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ANAEMIA PROFILE IN CIRRHOSIS OF LIVER

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Anup Kumar Das³

Background : Anemia of diverse etiology is a common finding in chronic liver diseases with poor outcome. Usual causes include acute or chronic gastrointestinal hemorrhage, hypersplenism secondary to portal hypertension, deficiency of vitamin B₁₂, folic acid nutritional deficiency.

Objectives : To assess the point prevalence, type and

severity of anemia in cirrhosis of liver

Methods : This study is a hospital based cross-sectional study carried out in patients of cirrhosis of liver attending OPD and admitted in department of Medicine. Anemia was evaluated by haemoglobin level, RBC indices and peripheral blood smear.

Results : In the 50 cases included, the prevalence of anemia was 90%, out of which 40% cases presented with upper gastrointestinal. Total mortality was 16%. Among the cases of upper gastro-intestinal bleed the prevalence of mild, moderate and severe anemia was 40%,15% & 35% respectively and the prevalence of type of anemia was normocytic normochromic 45%,microcytic hypochromic 35%,macrocytic 20%. Among the non- upper gastro-intestinal bleed cases the prevalence of mild, moderate, severe anemia was 3.33%,56.66% and 30% respectively and the prevalence of type of anemia was normocytic normochromic 33.33%, microcytic hypochromic 40%,macrocytic 26.66%. In peripheral blood smear examination 44% of cases showed anisopoikilocytes and 22% cases showed target cells.

Conclusion : The present study showed that majority of the patients with cirrhosis of liver were anemic. So the cause of anemia should be evaluated and anemia correction measures should be undertaken like iron, vitamin B₁₂, folic acid etc supplementation as indicated.

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MICROBIOLOGICAL DIAGNOSIS OF COMMUNITY ACQUIRED SPONTANEOUS BACTERIAL PERITONITIS IN CIRRHOTIC PATIENTS AND MOLECULAR CONCORDANCE WITH BACTEREMIA

Bipanchi Mahanta¹, Reema Nath², Anup Kumar Das³

Introduction : Community acquired Spontaneous bacterial peritonitis (SBP) in cirrhosis is a public health challenge especially due to multidrug resistant bacteria. The present study aimed at isolation of causative organisms and sensitivity pattern in SBP including molecular concordance with bacteremia.

Materials and Methods : All consecutive clinically suspected SBP cases attending Medicine OPD in Assam Medical College and Hospital from June 2018 to November 2018 were included. Peritoneal fluid was collected in sterile container and blood culture bottles to assess the sensitivity of sample collection procedures alongwith two sets of blood culture. All isolates were subjected for bacterial culture and antibiotic sensitivity. Organisms showing similar growths in blood and ascitic fluid were compared by antibiogram and molecular typing.

Results : Out of 56 SBP cases, bacterial growth was seen in 26 (46.42%) ascitic fluid samples collected in blood culture bottle

and only in 2(3.57%) samples collected in sterile containers ($p<0.001$). *Escherichia coli* (30.7%) was the commonest isolate followed by *Klebsiella pneumoniae* and *Staphylococcus aureus*. All Gram negative isolates showed multidrug resistance, highest for the third generation Cephalosporins (ESBL producers). Ten cases showed concomitant bacteremia of which 4 cases (40%) showed similar growth in blood and ascitic fluid. Of these, 3 cases (75%) were genotypically similar thus confirming infection by the same organism.

Conclusion : In diagnosing SBP, ascitic fluid should be collected in blood culture bottle. Concomitant bacteremia is not uncommon. Increasing antibiotic resistance is a new challenge for initiation of empirical therapy. Larger molecular studies to trace the source of peritonitis and its possible association with bacteremia are needed.

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EPIDEMIOLOGICAL FACTORS OF VARICEAL UPPER GASTROINTESTINAL BLEEDING IN PATIENTS OF CHRONIC LIVER DISEASE IN A TERTIARY CARE HOSPITAL

Harikishore U¹, Anupam Dutta²

Background : One of the main public health problems with special epidemiological interest is chronic liver disease, which is frequently caused by chronic alcohol use/hepatitis, also accompanied by portal hypertension and varices. Gastrointestinal bleeding from portal hypertension carries the highest mortality and has an equal range of recurrence

Aims and Objectives : To find out various epidemiological factors of variceal upper gastrointestinal bleeding in chronic liver disease patients in a tertiary care hospital

Study : Hospital based observational study.

Methods : This Study was done from DECEMBER 2017 to NOVEMBER 2018 in medicine department, AMCH. All the patients of UPPER GI BLEED (present or past H/O) who found out to be esophageal/gastric varices in upper GI scopy has been taken up for study excluding non variceal causes like peptic ulcer.

Results : In our study,60% of Chronic liver disease patients who had developed oesophageal variceal bleeding belongs 40 to 50 year age group and 30% of oesophageal varices are associated with portal gastropathy and mortality is high among patients more than 50 year age group.

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CORRELATION BETWEEN SERUM ASCITES ALBUMIN GRADIENT AND

ESOPHAGEAL VARICES IN PORTAL HYPERTENSION

Harish Soni¹, A K Das², B C Kalita³, Swarup Kar⁴

Aims and Objectives : To study the correlation between level of serum-ascites albumin gradient (SAAG) and different grades of esophageal varices (EV) in patients of Chronic liver disease (CLD) with Portal hypertension.

Methodology : This study is a hospital based cross sectional observational study carried out in 150 patients of Cirrhosis fulfilling Garcia-Tsao criteria with portal hypertension aged 13 years and above. SAAG was determined and esophagogastroduodenoscopy was performed in all the cases.

Results : Majority of the cases were in of 40-49 years of age group. Male constituting 75.33 % and females 24.67 %. 47% cases with SAAG of $e^{1.1 - 1.49}$ were having Grade I varices, 44.4% in SAAG range of 1.5 – 1.99 were having Grade II varices, 57.14% in SAAG range of 2.0 – 2.49 were having Grade III varices and 80% having SAAG of $e^{2.5}$ were having Grade III varices. The correlational analysis between different grades of esophageal varices with SAAG using Spearman's rank correlation revealed $R = 0.61963$ & p-value being < 0.001 . SAAG value of $> 1.2 \pm 0.03$ g/dl was a marker of the occurrence of esophageal varices with 91.2% sensitivity and 78.6% specificity.

Conclusion : There is a statistically significant and positive correlation between the value of SAAG and different grades of esophageal varices which implies that, as the value of SAAG increases the possibility of developing higher grade of esophageal varices also increases. Hence SAAG should be viewed as a preliminary and indirect method for predicting the presence and estimating the grade of esophageal varices.

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PROFILE OF ACUTE LIVER FAILURE FROM NORTH EAST INDIA AND ITS DIFFERENCES FROM OTHER PARTS OF THE COUNTRY

Rohini Kumari Pegu¹, Anupam Dutta², Anup K Das³, Tarjina Begum⁴, Premashish Kar⁵

Background : Acute liver failure is a critical illness with a large number of viral and nonviral causes. Clinical course and etiologies in the Asian Countries are different from those reported from Western World and mortality is high. There may even be intracountry variations in large Countries like India which have different Culture, ethnicity and environment. Data from North-east part of India is lacking

Materials and Methods : Acute liver failure cases (> 14 yrs of age) seen over the period of 8 yrs ($n=225$) were studied at a Government Medical College in Assam for their etiological and

other demographic profile. Viral serology was carried out and revalidated at a laboratory in New Delhi

Results : Majority of cases were < 30 yrs of age. Commonest etiology was nonviral (non-ABCE). Amongst viral causes, hepatitis A and hepatitis E were common, while hepatitis B virus (HBV) was rare. Unknown herbal medication use was very frequent in our cases with a significant higher mortality. Mortality was highest in cases in 3rd decade of life. Statistically, International normalized ratio (INR) was the strongest predictor of death

Conclusion : Unlike the rest of India, hepatitis virus is not the major cause of ALF in our part; hepatitis A being commoner than hepatitis E and B is rare. Unknown herbal medications are the major cause of mortality and is important medicosocial issue. Our study highlights the differences in the profile of ALF from other Indian and Western studies, possibly due to sociocultural factors prevalent in this part.

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A STUDY ON CAROTID INTIMA MEDIA THICKNESS IN NONALCOHOLIC FATTY LIVER DISEASE PATIENTS AND ITS CORRELATION WITH FIBROSCAN

Rubi Kumari¹, Shekharjyoti Gogoi², B N Mahanta³

Background : NAFLD encompasses the spectrum of clinicopathological conditions in individuals without significant alcohol consumption, ranging from fatty liver to steatohepatitis and cirrhosis. CIMT is a measure of the combined thickness of the intima and media layers of the carotid artery, commonly assessed by B-mode ultrasound. Higher grades of liver biopsy associated with higher CIMT. Fibroscan, measures liver stiffness, has been successful in identifying and grading liver fibrosis in NAFLD. However, limited data available, whether this can be directly correlated with CIMT or not.

Objectives :

- To determine CIMT in patients with NAFLD and in matched controls.
- To evaluate the correlation between CIMT and Fibroscan gradings in NAFLD patients.

Materials and Methods : The study was hospital based case control study conducted in AMCH over a period of one year. 84 NAFLD patients were taken and equal number of age and gender matched controls were enrolled in the study.

Results : 25 % of NAFLD patient had CIMT $e^{0.8}$ mm whereas only 10.71% of control group had CIMT > 0.8 . Mean Liver stiffness measurement by fibroscan in CIMT $e^{0.8}$ mm group was 8.36 ± 5.55 KPa and in CIMT < 0.8 mm group was 5.70 ± 1.77 KPa, difference was clinically significant ($p = 0.010$).

Conclusion : Higher prevalence of increased CIMT was found in the NAFLD group. There is significant positive

correlation between CIMT and Fibroscan grading. As Fibroscan and CIMT estimation are outdoor procedures and noninvasive modalities, would help to identify the NAFLD patients at risk, grade the disease severity and screen to prevent future cardiovascular events.

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A STUDY OF LIPID PROFILE IN TREATMENT NAÏVE HUMAN IMMUNODEFICIENCY VIRUS INFECTED PATIENTS

Jacqueline Shira¹, A Swam², K Bhattacharjee³,
P Bhattacharjee³

Introduction : The first case of HIV infection was reported in 1981, since then it has reached the state of pandemic. In India it still continues to be the most important communicable disease. Lipid levels is influenced by different demographic differences in treatment naïve HIV patients. There are not many published data to substantiate for treatment naïve HIV patients. This study was undertaken to assess dyslipidemia due to HIV infection per se.

Aims and Objectives : To study lipid profile in HIV patients and to determine the association between lipid profile and stages of the disease

Materials and Methods : This observational study was of a case control design done for 1 year. 50 apparently healthy and treatment naïve HIV patients of age group 18-60 belonging to either sex were recruited. HIV infected individuals on HAART treatment, Lipid lowering drugs, BMI > 30, Diabetes, Pre-existing renal disease, malabsorption syndrome or liver disease were excluded.

Results : The median (IQR) triglyceride was significantly higher in HIV-positive patients than in the controls [1.85 (1.30-2.40) mmol/L vs. 1.45 (1.30-1.60) mmol/L, P = 0.01].

HIV-positive patients also had significantly lower mean total cholesterol and HDL-C.

Higher levels of mean serum triglyceride and VLDL levels were seen with CD4+ cell count <200 cells/mm compared to those with CD4+ cell count >200

Conclusion : It can be concluded from the study that dyslipidemia is common in treatment naïve patient, with significant hypertriglyceridemia, and the dyslipidemia worsens with decrease in the CD4 count in later stages of the disease.

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THE ROLE OF CEREBROSPINAL FLUID CARTRIDGE BASED NUCLEIC ACID AMPLIFICATION TEST IN DIAGNOSIS OF TUBERCULAR MENINGITIS

Bhayolina Bora¹, Tribeni Sharma²

Introduction : Tuberculous meningitis comprises a significant proportion of TB cases globally and accounts for highest rates of morbidity and mortality out of all forms of tuberculosis. The diagnosis of TBM has been a continuous challenge. Though culture is the gold standard for diagnosis, however, culture techniques are slow which makes it unsuitable as a routine technique for rapid diagnosis. Cartridge based nucleic acid amplification test (CB-NAAT, GeneXpert) is a molecular technique which not only detects Mycobacterium Tuberculosis but also rifampicin resistance within two hours. According to recent WHO guidelines, Xpert MTB/RIF should be used in preference to conventional microscopy and culture as the initial diagnostic test in testing cerebrospinal fluid specimens from patients presumed to have TB meningitis in order to reach quick diagnosis.

Objectives : To study the role of CSF CBNAAT in diagnosis of Tubercular meningitis.

Materials and Methods : The study was carried out on 90 cases of suspected Tuberculous Meningitis in the Department of Medicine, Gauhati Medical College and Hospital. The final diagnosis was based on standardized clinical case definition (Marais et al, 2010). CSF CBNAAT was done for all the cases.

Observations : A total of 55 patients of Tubercular meningitis were analyzed in the study. CSF CBNAAT study for tuberculosis was positive in 29 out of 55 patients showing a sensitivity of 52.7%.

Conclusion : The simplicity and speed makes CSF CBNAAT technique a very important tool for the rapid diagnosis of TB meningitis.

Keywords : Tubercular meningitis, Cerebrospinal fluid, CBNAAT

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SIGNIFICANCE OF CEREBROSPINAL FLUID (CSF) - C REACTIVE PROTEIN (CRP) IN VARIOUS TYPES OF MENINGITIS

Hafizur Rahman¹, Swaroop Kumar Baruah²,
Sherin Gogoi³

Introduction : Meningitis often presents as a medical emergency, which requires rapid and prompt diagnosis with aggressive management to select appropriate therapy to prevent mortality and long-term morbidity. Sometimes signs and symptoms, results of routine CSF analysis and radiological findings are inadequate in making a definitive diagnosis. Gram's stain and AFB stain of CSF are rapid technique for detection of organism but lack sensitivity, tests like PCR & ELISA although helpful costly, not easily available, and not easily performed. In such circumstances, the determination of CSF CRP appears to provide a new dimension to specific diagnosis of meningitis.

Objective : (1) To estimate C-reactive protein (CRP) level along with other diagnostic parameters in cerebrospinal fluid of

patients with meningitis. (2) To evaluate whether CSF-CRP level could be used to differentiate the various types of meningitis.

Materials and Methods : The study was carried out on 92 patients admitted in the Department of Medicine and Department of Neurology, Gauhati Medical College & Hospital, Guwahati, Assam.

The final diagnosis was based on the clinical criteria and biochemical, cytological & bacteriological examination of CSF.

Observations : In our study, the mean CRP in CSF of patients with bacterial meningitis, tubercular meningitis and viral meningitis were; 24.00 ± 11.17 mg/dl, 5.27 ± 3.15 mg/dl and 2.57 ± 3.11 respectively. The calculated p values show that the difference is statistically significant ($p < 0.0001$) when the means of bacterial group is compared with the other two.

Conclusion : CSF CRP level can be used to differentiate bacterial meningitis from tubercular and viral meningitis.

Keywords : CRP, Meningitis, Cerebrospinal Fluid.

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PROFILE OF TUBERCULOSIS PATIENTS ADMITTED IN MEDICINE UNIT 5 OF ASSAM MEDICAL COLLEGE, DIBRUGARH IN THE YEAR 2018

Sagar C. Kanta, Anupam Dutta.

Background : Tuberculosis is one of the major burden affecting INDIA caused by *Mycobacterium tuberculosis* which spreads through droplets. Global TB report 2017 estimated incidence of TB in INDIA was approximately 28,00,000 about a quarter of world's TB cases.

Materials and Methods : Tuberculosis cases seen over a period of 11 months (n=100) were studied in Medicine unit 5, Assam medical college for their clinical presentation and demographic profile.

Results : Majority of the cases were in of male patients, in the age group 20-65yrs with 44 cases from Dibrugarh followed by Tinsukia (23). Pleural effusion 24 cases (M-20,F-4) being one of the common causes for admissions and hence extra pulmonary TB leading to admissions. Sputum positive tuberculosis were 19 cases (M-14, F=5), 18 cases of Disseminated Koch's. 17 patients expired of which major were the Disseminated Koch's patients. There were also 10 cases of post tubercular sequelae.

Conclusion : Though the Pulmonary Tuberculosis is common in India, it wasn't responsible for admission and was treated in the out-door basis and extra pulmonary tuberculosis was responsible for admission. The patients expired were mainly of Disseminated tuberculosis implying poor immunity, not well nourished or non-compliance to primary treatment. And even after completion of treatment there is risk of re-infection or the patient being affected as seen by the number of post tubercular sequelae.

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A STUDY ON PRESCRIBING PRACTICES USING WORLD HEALTH ORGANIZATION (WHO) PRESCRIBING INDICATORS IN A BLOCK OF TINSUKIA DISTRICT, ASSAM

Dakshadhwari Upadhyay¹, Rashmi Ahmed²,
Rupali Baruah³

Introduction : Indian markets are flooded with more than 70,000 formulations, compared to approximately 350 formulations listed in the World Health Organization (WHO) Essential Drug List. To promote rational drug use in developing countries, assessment of drug use patterns with the WHO drug use indicators is becoming increasingly necessary. This study was conducted to study the prescribing patterns using WHO prescribing indicators in government healthcare facilities in a district of Assam.

Methods : This was a cross sectional study carried out from July to September 2017. Out of total 4 blocks in Tinsukia district one (Ketetong) was randomly selected. All the primary and secondary level government health facilities were included and visited one by one. All the prescriptions on that day of visit were digitally photographed at the pharmacy of the health institution after taking written informed consent from the patient. A total of 353 prescriptions were scrutinized and analyzed using appropriate statistical tests.

Results : Out of total 353 prescriptions collected, 11 were illegible and excluded from the analysis. The average number of drugs per encounter was 3.8. In 62.2% of encounters antibiotics were prescribed and injections were prescribed in 30.6% encounters. 71.2% drugs were prescribed by generic name and 55.5% drugs were prescribed from the EDL.

Conclusion : The average number of drugs, percentage of injections and antibiotics per encounter was higher than recommended whereas prescription by generic name and from EDL or formulary was lower than recommended. Training of healthcare workers on rational drug use is need of the hour.

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CLINICAL PROFILE OF PATIENTS ADMITTED WITH ACUTE ABDOMEN IN DEPARTMENT OF MEDICINE IN ASSAM MEDICAL COLLEGE

Rupam Saikia¹, A K Das²

Introduction : Acute abdomen accounts for 50% of all emergency admissions to general medicine or surgical units

ACINETOBACTER SPECIES CAUSING BLOODSTREAM INFECTIONS AND THEIR DRUG RESISTANCE PATTERN IN CLINICALLY SUSPECTED CASES OF SEPTICEMIA IN TERTIARY CARE HOSPITAL

Chaitali Konwar¹, Arunjyoti Sarmah²,
Partha Pratim Das², Dr Reema Nath³

Introduction : The number of infections caused by microorganisms of the genus *Acinetobacter* has increased in recent years. They have few nutritional requirements and are highly resistant to antimicrobial agents. *Acinetobacter baumannii* is the *Acinetobacter* species most frequently encountered in clinical samples.

Aims and Objectives : To study the prevalence of *Acinetobacter* species and its sensitivity pattern in blood isolates in AMCH

Materials and Methods : Retrospective study was done in the Dept of Microbiology from Nov 2017-2018 for all blood isolates.

Isolation and identification of *Acinetobacter* species were performed according to standard techniques of bacteriology and susceptibility testing as recommended by the CLSI.

Disk diffusion test was used to determine the susceptibility of isolates to- Cefazidime, Cefotaxime, Ciprofloxacin, Ampicillin/Sulbactam, Imipenem, Meropenem, Tigecycline, Levofloxacin, Cefoperazone-sulbactam, Ceftriaxone, Cefipime, Amikacin.

Results and Observation : In 1 year duration, 1372 (n) cases were culture positive, out of which 170 isolates were *Acinetobacter* species (n/170= 12.4%)

In these 170 isolates, 84% resistance to Cefazidime and Cefotaxime, 81% resistance to Ceftriaxone and 74% resistance to Cefipime was observed.

Maximum susceptibility was observed in- Meropenem (96%), Tigecycline (98%), Imipenem (84%) and Levofloxacin (77%).

Conclusion : Antimicrobial resistance among *Acinetobacter* spp. has substantially increased in the past decade. Multidrug resistant *Acinetobacter baumannii* infections have a great impact on health care settings. Strict infection control measures, adequate use of antimicrobial agents, and appropriate use of invasive procedures could be important preventive measures in decreasing the incidence of *A.baumannii* infections.

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IMPACT OF ALCOHOL ON THE FAMILIES OF ALCOHOLICS

N Bhartia, A K Das²

Introduction : Alcohol is a risk factor for many health, social and economic problems of communities. Adverse effects of

It is a consequence of complex four processes—*Inflammation, Perforation, Obstruction, Miscellaneous causes.*

A. Inflammatory causes-- Appendicitis, Diverticulitis, Cholecystitis, Pancreatitis, Pyelonephritis, Intraabdominal abscess *B. Perforation—*Peptic ulcer, diverticular disease, Ovarian cyst, Aortic aneurysm *C. Obstruction—* Intestinal obstruction, Biliary colic, Ureteric colic *D. Miscellaneous—* Psychogenic, vertebral compression or fracture, abdominal muscle strain acute intermittent porphyria, sickle cell disease, beta hemolytic anemia, radiculopathy.

*Initial clinical assessment—*a) Initial clinical examination and general survey is important. b) Look for signs of peritonitis. c) Go for investigations such as plain picture abdomen, ultrasonography abdomen. *Management—*a) Urgent intervention required b) General approach is to close perforations, treat inflammatory conditions with antibiotics, resection, and to relieve obstructions. c) Treatment of different conditions is different depending upon the cause, surgery has a bigger role to play

Aims and Objectives : 1. To study the clinical profile of patients admitted with acute abdomen in department of medicine in Assam Medical College in last one year.

2. To study the cause of acute abdomen in the patients admitted

Methodology : 1. PLACE OF STUDY—Department of Medicine, Assam Medical College, Dibrugarh

2. STUDY DESIGN—Hospital based observational study

3. DURATION OF STUDY—1 YEAR

4. INCLUSION CRITERIA—1. All the patients admitted to medicine department with acute abdomen

Results and Outcome : (1) Males- 381, Females-87 Total cases -468 (2) Recovery-421, Expiry-36 (male-29, female 7), (3) Shifted to surgery-11 male 6, female 5. (4) Medical causes- 412, Surgical causes-56. (5) Etiological Classification-(A) Acute pancreatitis—281 (M- 254, F-27), (B) Acute pancreatitis with complications—39 (M-34, F-5), (C) Acid peptic disorder—53 (M-29, F-14), (D) Miscellaneous—95, (E) Miscellaneous causes include- Acute gastroenteritis-55, Cholecystitis-11 hemolytic anemia in crisis- 5, T2DM with DKA- 7, Renal calculi- 13, acute appendicitis-4, (F) Causes related to alcohol—389 out of total 468 cases (83.11%)

Discussion : (1) Acute pancreatitis is the most common etiology for acute abdomen and is the most common cause of mortality and morbidity as well. (2) Acute pancreatitis and its complications are generally responsible for mortality- most important being acute respiratory distress syndrome followed by acute kidney injury and septicemia. (3) Alcohol is the most important medical risk factor of acute abdomen; accounting for more than 85% of the cases

Conclusion : (1) Acute abdomen is a medical as well as surgical emergency, prompt intervention required. (2) Recovery depends on the initial resuscitation part. (3) Alcohol has a direct relation with almost all the causes, alcohol avoidance will play a key role in prevention

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alcohol use have been linked to acute and chronic complications i.e. increasing crime, work absenteeism, loss of productivity, damage to property and the physical and emotional abuse of family members.

Objectives : This study was done to assess the impact of alcohol use on the family members as well as on patients themselves presenting to Assam medical college & Hospital (AMCH)

Methodology : Observational cross sectional study, questionnaire based, on patients presenting to Department of Medicine, AMCH

Inclusion criteria: Male patients with history of alcohol abuse. (n=500)

Exclusion criteria: Non-alcoholics were excluded.

Results : Adolescent alcoholism was seen in 69%. Sixty (60%) population belonged to lower socio economic group. Individuals (n =358/500) lost job, 44% were involved in gambling (social burden), 72% took loans to incur expenses. Half of their earning was spent on alcohol by 60% of study population.

School dropout rate was 84% in patient's children, 33% were bread earner for the family.

Domestic violence was documented in 90%, 13% resulted in serious injuries.

Previous hospitalization was seen in 90% of the population increasing morbidity.

Conclusion : Alcohol abuse, described as the sum total effect on the individual, family and society. Harmful use gives a significantly adverse impact on the lives of family members. Members suffered abuse (physical/ emotional), faced hardships to support the family financially, psychologically. Child abuse led to poor economic growth of the family as well as the society.

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BACTERIAL ISOLATES AND THEIR ANTIBIOGRAM FROM TRACHEAL ASPIRATES OF ICU PATIENTS IN A TERTIARY CARE HOSPITAL OF NORTH EAST INDIA

Poonam Katoch, Bipanchi Mahanta², Partha Pratim Das², Arun Jyoti Sarmah², Reema Nath³

Aim and Objective : The present study was designed to know the bacterial profile of tracheal aspirates and determine the antimicrobial resistance pattern among patients admitted to the Intensive Care Units of the institute to initiate appropriate empirical therapy till bacteriological reports become available.

Materials and Methods : Laboratory based retrospective study was carried out for a period of one year from Dec 2017 to Nov 2018 in Assam Medical College and Hospital, Assam. Tracheal aspirate samples sent from critically ill patients admitted to the four Intensive Care Units present in the Institute were included in this study and their growth and antibiotic

resistance pattern was evaluated according to the CLSI guidelines.

Result : 88 tracheal aspirates from ICU admitted patients were obtained. 68 (72.2%) of the patients were male and 20 (22.7%) were females. Highest number of isolates (38%) were obtained from the age group of 50 to 70 years. *Klebsiella* spp. (56.8%) was highest followed by *Pseudomonas* spp. (32.9%) and *Acinetobacter* spp. (14.7%). 9.5% *Klebsiella* spp. and 15.4% *Pseudomonas* spp. species were resistant to all the available group of antibiotics including the Carbapenems. Overall, 78% isolates were resistant to the third generation Cephalosporins, 82 % to Amikacin, 54.7% to Ciprofloxacin, 44% to Piperacillin-Tazobactam, 33% to Meropenem and 17% to Imipenem.

Conclusion: Most of the tracheal isolates evaluated were resistant to the antibiotics commonly available; which calls for an alarm to the health care workers. An appropriate antibiotic policy is an urgent need in all the ICUs to stop the rapid emergence and spread of multi drug resistance.

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DETECTION OF EXTENDED SPECTRUM BETA LACTAMASE PRODUCERS IN BLOOD CULTURE ISOLATES FROM CLINICALLY SUSPECTED CASES OF SEPTICEMIA

Prativa Sahu¹, Arunjyoti Sarmah², Partha Pratim Das², Reema Nath³

Introduction : Multidrug resistant Gram negative bacteria are emerging as a major threat to health care. The Cephalosporin is now leading to serious treatment failures due to the rapid emergence and spread of the Extended Spectrum Beta Lactamase (ESBL) producers.

Aims and Objectives : The present study was undertaken to determine the prevalence and drug susceptibility pattern of ESBL producers isolated from blood culture in clinically suspected cases of septicemia.

Methods : A retrospective study was done on all consecutive blood culture samples sent to the Department of Microbiology, Assam Medical College & Hospital, for 1 year from November 2017 to October 2018, with a clinical suspicion of sepsis. Cultures were identified using conventional methods and antimicrobial susceptibility was interpreted according to CLSI guidelines.

Results : Out of 3533 samples, 1378(39%) showed growth; of which 131(9.50%) were ESBL producers. *Klebsiella pneumoniae* was highest (83.96%) followed by *Escherichia coli* (14.50 %). Among the ESBL producers 40.36% sensitive to Ciprofloxacin, 46.66 % were sensitive to Gentamicin, 84.04% were sensitive to Meropenem and 100% sensitive to Tigecycline.

Discussions and Conclusion : Present study shows high

proportion of ESBL producers compared to contemporary studies with an alarming rate of drug resistance to almost all available group of antibiotics including the Carbapenems. Therefore, this study reflects the emerging multidrug resistance in Northeast India and demands an urgent need for strict infection control measures and formulation of antibiotic policies.

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PREVALENCE OF METHICILLIN RESISTANCE STAPHYLOCOCCUS AUREUS AND THE ANTIBIOTIC SUSCEPTIBILITY PATTERN IN ASSAM MEDICAL COLLEGE, DIBRUGARH

Ranjita Khandait¹, Arunjoyoti Sarmah², Partha Pratim Das², Reema Nath³

Introduction : Methicillin resistant Staphylococcus aureus(MRSA) is an important nosocomial pathogen,with an increasing prevalence of Multidrug-resistance worldwide.

MRSA causes a wide spectrum of infections ranging from mild skin and soft tissue infections to life threatening sepsis.

For treatment of infections caused by Staphylococcus aureus ,methicillin-resistance is a useful marker for selection of appropriate antimicrobial agents.

Aims and Objectives : This present study was undertaken to study the prevalence of MRSA and its Antibiotic susceptibility pattern of MRSA isolated in Assam Medical College.

Materials and Methods : A total of 423 S.aureus isolates from various clinical samples of wound swab,pus,urine,sputum received in our Clinical laboratory of Dept of Microbiology, AMCH, for a period of 12 months were included in the study.

All isolates were tested for MRSA using Cefoxitin 30 mgdisc.

These MRSA isolates were subjected to antimicrobial susceptibility testing (AST) by Kirby-Bauer disc diffusion method and results were interpreted according to CLSI.

Results and Discussion : Of the 423 S. aureus isolates tested,methicillin resistance was documented in 53 % of the isolates. All MRSA isolates were resistant to Penicillin and sensitive to Linezolid(98%) ,Vancomycin(96%) and Teicoplanin(92%)

Conclusion : Our present study shows the prevalence of MRSA isolates to be 53 % showing multidrug resistance pattern.

Hence regular surveillance and monitoring of antibiotic sensitivity pattern is required to reduce MRSA prevalence.

Further indiscriminate use of antimicrobials should be discouraged to prevent the emergence of multi drug resistance strains of MRSA in the hospital environment.

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EVALUATION OF ELECTROLYTE IMBALANCE IN PATIENT'S WITH TRAUMATIC BRAIN INJURY

Dr. Sandeep Dey¹, Dr. Dr. Ramesh Kumar¹,
Dr. Rajib Kumar Bhattacharyya²

Introduction : Electrolyte imbalance is a corner stone finding in traumatic brain injury which can derail their clinical course of recovery in physical and cognitive health while prolonging hospital stay.

Objective: The study aims to understand the variation in electrolyte profile that occurs in traumatic brain injury patients which can help us in a better management.

Materials and method : 50 trauma patient with head injury (Group A) and 50 patients without head injury (Group B) admitted in CICU, Department of Anesthesiology, AMCH were studied with regard to electrolyte variability.

Result : Statistically significant difference was found in both the groups when results were computed as mean±SD.

Conclusion : We conclude that traumatic brain injury patients have greater risk of dyselectrolytemia, viz. hyponatremia, hypokalemia, hypocalcemia as well as hypomagnesemia and hypophosphatemia along with hypoalbuminemia.

Key Words : Traumatic brain injury, electrolyte imbalance.

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SODIUM HOMEOSTASIS AND ITS CORRELATION WITH MORTALITY IN CRITICALLY ILL PATIENTS

Trinayani Barua¹, Sreemanta Madhab Baruah²

Background : Sodium-related disorders (both hyponatremia and hypernatremia) are extremely common and are associated with considerable morbidity and mortality. Hyponatremia is a decline in plasma sodium level that is <135 mmol/L in blood. Hyponatremia is the most common electrolyte disorder among hospitalized critically ill patients and has been associated with mortality ranging from 5% to 50%. Hypernatremia is defined as plasma sodium level more than 145 mmol/L. Hypernatremia is associated with cellular dehydration and central nervous system damage.

Objectives : To study sodium homeostasis in critically ill patients. To correlate sodium imbalances with mortality in critically ill patients

Materials and Methods : This was a hospital based retrospective study conducted in Medicine Intensive Care Unit in AMCH ,Dibrugarh over a period of one year from October 2017 to September 2018.

Study Population : All patients admitted in MICU of 12 years of age or more. Investigations such as serum creatinine, BUN , sodium ,serum osmolality , urine sodium and urine osmolality and neuroimaging were done.410 patients were studied.

EVALUATION OF UPPER GASTROINTESTINAL LESIONS IN PATIENTS WITH CHRONIC KIDNEY DISEASE

Mahesh K Katakbhavi¹, B N Mahanta²

Introduction : Gastrointestinal (GI) symptoms are common in patients with chronic kidney disease (CKD). The most common non renal chronic disorders in patients with chronic kidney disease are gastrointestinal disorders, necessitating the need to evaluate the accompanying gastrointestinal lesions. Upper Endoscopy is a diagnostic tool for evaluating GI manifestations in this group of patients.

Methods : This was a hospital based observational study. 100 patients of age group 13-70 years, diagnosed as Chronic Kidney Disease (CKD) of stage 3-5 with upper gastrointestinal symptoms and who were clinically stable were included in the study. Endoscopy was performed in all patients using PENTAK EPK-P endoscopy.

Results : Out of 100 patients of CKD stage 3-5, 63 were males and 37 were females. Age of patients ranged from 20- 70 years. Majority of the patients were in the age group of 40-49 years while no patients were in age group 13-20 years. Most of the patients were in CKD stage 5 (61%). The predominant symptoms were anorexia (60%), nausea and vomiting (53%). Endoscopically, 53 % of patients had one or more upper GI mucosal lesions. Lesions were more frequent in the stomach (62.2%). Antral erosions (16%) were the most common upper GI lesion seen followed by antral gastritis (14%) and duodenal ulcer & esophagitis (7%).

Conclusion : Gastrointestinal manifestations are common in patients with chronic kidney disease, with anorexia, nausea and vomiting detected as the most common presenting symptom, stomach as the most commonly affected site, and antral erosions as the most commonly detected lesion.

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A STUDY OF CLINICAL PROFILE OF PATIENTS WITH ACUTE KIDNEY INJURY ADMITTED IN TERTIARY CARE HOSPITAL

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Introduction : AKI complicates 5 - 7 % of patients hospitalised in acute care and upto 30% of intensive care unit settings particularly in conditions like diarrhoeal illness, infectious diseases like malaria, leptospirosis. It is one of the most common and dreaded complication in ICU patients with high mortality.

Results : Out of 410 patients, 106 (25.8%) had hypernatremia, 84 (20.48%) had hyponatremia and 220 (53.65%) had normal sodium levels. 225 (54.87%) patients died. There was a statistically significant correlation between sodium imbalance and death ($p < 0.0001$). Mortality in hypernatremia (88.67%) was slightly higher than hyponatremia (86.90%), each having p value < 0.0001 .

Conclusion: Hyponatremia and hypernatremia are independent mortality factors in critically ill patients. Timely and effective correction of sodium levels is important to save a patient's life. Hypernatremia is often iatrogenic. Therefore proper monitoring of sodium is a must.

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STUDY OF LIPID ABNORMALITIES IN NON DIABETIC CHRONIC KIDNEY DISEASE AND ITS CORRELATION WITH DISEASE SEVERITY WITH SPECIAL REFERENCE TO HEMODIALYSIS

Debleena Paul¹, A K Pegu², Sawjib Borphukan³

Background : The growing recognition of dyslipidemia as a major risk factor for cardiovascular disease which in turn, is a major cause of mortality in chronic kidney disease patients, has promoted interest in lipid abnormalities. CKD patients have higher prevalence of dyslipidaemias and those on dialysis have 10 to 20 times higher cardiovascular mortality rates than the general population. Therefore, early detection and intervention in these patients will possibly prevent cardiovascular mortality.

Aims and Objectives : To study lipid abnormalities in non diabetic CKD patients and find the correlation of different lipid fractions with the severity of CKD with special reference to haemodialysis.

Materials and Methods : A hospital based case control study conducted from 2017 to 2018 on 150 non-diabetic CKD patients with 150 age and sex matched controls. The lipid profiles were studied and any correlation with disease severity (based on stage of CKD) was looked for and compared between patients on maintenance hemodialysis and not on dialysis.

Results and Observations : HDL level was significantly lower while triglyceride, total cholesterol and LDL level was significantly higher in the cases than in controls. The triglyceride levels showed progressive increase and HDL showed progressive decline from CKD stage 3 to 5. In the hemodialysis group, triglyceride level was significantly higher while HDL and total cholesterol levels were significantly lower than the conservative group.

Conclusion : CKD patients show abnormal lipid profile that worsens with progressive stages of CKD and more so in those undergoing hemodialysis, manifesting predominantly as hypertriglyceridemia and low HDL.

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Methods : The study was conducted comprising of 100 patients admitted in the department of Medicine at Silchar Medical College and Hospital from June 2017 to May 2018.

Aims : To study etiology and clinical feature of AKI and its immediate outcome.

Results : Prerenal AKI was most common type. Sepsis accounted for 27% of total AKI cases followed by Acute gastroenteritis (20%, Cardiogenic causes (14%) and other causes constituted 39%. Overall the mortality was observed to be 25% most commonly in patients with sepsis and least in cases of Malaria.

Conclusion : Outcome of AKI depends on the etiology and severity of injury. Hence appropriate supportive care is needed to prevent or reduce progression of injury.

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A STUDY OF DEMOGRAPHIC PROFILE OF CHRONIC KIDNEY DISEASE IN AMCH

Rajnish Kumar¹, A K Das²

Introduction : CKD Is defined as presence of structural or pathological damage of kidney or presence of markers of damage, including abnormalities in blood or urine test or imaging studies or eGFR < 60ml/min/1.73m² with or without kidney damage for 3 or more than 3 months.

Patient presenting to doctor at stage CKD 5 is about 47.5% which is unfortunate thing about 4-6% of people are in stage 1 and 2 which is usually not detected.

Globally risk of association of DM in patients with CKD is 31.2%, HTN 14.1%.

Aims and Objectives :

1. To find out demographic profile with respect to age, sex and geographical distribution of chronic kidney disease.
2. To find out hospital burden of chronic kidney disease.
3. To find out association of Diabetes mellitus, Htn and other aetiological factors.
4. To find CKD related mortality.

Materials and Methods : PLACE OF STUDY : Department of medicine, AMCH, Dibrugarh. DURATION OF STUDY : 6 Months (1st May 2018- 31st October 2018), STUDY DESIGN: Hospital based Observational Crosssectional study. DIAGNOSTIC CRITERIA FOR CKD USED IN STUDY:

1. USG evidence of bilateral loss of corticomedullary differentiation of kidney and/or
2. Increased renal parenchymal echo texture and or small kidney and/or
3. eGFR < 60ml/min/1.73m²

Inclusion Criteria :

1. Patient's age > 13 years.
2. Patients with diagnosed case of CKD with diagnostic criteria as mentioned above.

Exclusion Criteria :

1. Patient's age < 13 years.
2. Patients with acute kidney injury.

Percentage of Total Admission Due to CKD

Total No. Hospital Admission	Total Admission Due to CKD
4613	8

Percentage (%)

Sex Distribution of CKD

Total No. of CKD	Male	Female	Ratio (M : F)
367	216	151	1.4:1

Age Distribution of CKD

Age Group	Male	Female
13-30y	13	26
31-40y	32	28
41-50y	47	31
51-60y	70	36
>61y	54	30

Association Of Different Etiological Factors

Etiology	Male	Female
Htn	105	62
Dm+Htn	81	50
Others	35	39
Total	216	151

Ckd Related Death

Death(In Male)	Death (In Female)	Mortality
23	17	10.8%

Geographical Distribution of CKD

District	No. of Cases	Percentage
1. Dibrugarh	109	29.7
2. Tinsukia	77	20.9
3. Sivsagar	69	18.8
4. Dhemaji	35	9.5
5. Charaideo	22	5.9
6. Jorhat	19	5.1
7. Golaghat	9	2.4
8. Majuli	7	1.9
9. Lakhimpur	7	1.9
10. Others	13	3.5
Total	367	

Discussion : Hypertension is the most common cause of CKD. Males are more affected than the female. The most common age group is > 50y of age. The most of cases are reported from Dibrugarh district. Mortality rate is 11%.

Conclusion : The most common affected area is DIBRUGARH. The other environmental factors such physical, chemical and cytological constituents of soil and water needs proper evaluation.

Hypertension is the most common cause of ckd. so, early detection and proper management of hypertension is necessary for prevention of CKD. In majority of cases (20%), factors such as obstructive uropathy, polycystic kidney disease, SLE is the cause of CKD- early intervention in these patients can reduce the burden of CKD.

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GLOMERULAR FILTRATION RATE AS A MARKER OF RENAL IMPAIRMENT IN CHRONIC KIDNEY DISEASE IN ELDERLY DIABETICS AND HYPERTENSIVES

Sandeepan Saha¹, Debabrata Goswami²

Introduction : Chronic kidney disease (CKD) is a common clinical problem in elderly and is associated with increased morbidity and mortality. As life expectancy continues to improve, there is a rising prevalence of comorbidities and risk factors predisposing to a high burden of CKD in this population. Timely referral requires early detection of kidney disease and in this respect the most common screening test done for renal dysfunction is the serum Creatinine. However in elderly subjects due to low muscle mass, malnutrition and other chronic disease, the serum Creatinine may be normal with an abnormal GFR. More accurate estimates of renal function can be assessed by measuring the Creatinine clearance from a timed urine collection or by using formulas such as Cockcroft and Gault equation

Objective : To study the importance of GFR as a marker of renal impairment in chronic kidney disease in elderly

Materials and Methods : A total of 147 elderly patients admitted in the Department of Medicine, GMCH were taken for the study. Renal function test, GFR, Urine routine examination, USG Whole abdomen were carried out in all the patients.

Observations : 81 (55 %) of the patients were found to have chronic kidney disease when the renal impairment was measured by GFR estimation using the Cockcroft Gault equation. However when Serum creatinine >1.2 was used as a marker for renal impairment, only 44(30%) had renal impairment.

Conclusion : GFR is a better marker of renal impairment in chronic kidney disease in elderly as compared to Serum Creatinine however GFR if considered alone will increase the CKD burden disproportionately in elderly and that is a major concern in some recently published articles

Keywords : GFR (glomerular filtration rate), CKD (chronic kidney disease)

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ACUTE FLACCID PARALYSIS IN ADULTS WITH SPECIAL REFERENCE TO HYPOKALEMIA

Hitesh Deka¹, S Kakati², B Laskar³

Background : Acute flaccid paralysis is characterized by rapid onset weakness of extremities in absence of spasticity or other signs of disordered central nervous system motor tracts. After elimination of poliovirus worldwide, GBS become the most common cause of AFP worldwide. Hypokalemia is a metabolic myopathy commonly presenting as a AFP.

Aim and Objective : To study the various causes of AFP with special reference to clinicoetiological spectrum of hypokalemic paralysis in adults.

Materials and Methods : This study is a hospital based observational study carried out on 113 patients presenting with features of AFP, admitted in Department of Medicine, AMCH, Dibrugarh over a period of 1 year.

Results : Among the 113 AFP cases studied, most common cause was GBS (44.25%) followed by hypokalemia (40.71%) and

other causes like acute transverse myelitis (6.19%), neurotoxic snake bite (2.65%), myasthenia gravis (2.65%), Organophosphate induced delayed polyneuropathy. Majority of the patients (68.14%) were male belonging to 31-40 years age group with ascending paralysis being the most common presentation. Among 46 hypokalemic paralysis patients 22 had history of recurrent attack, 32.61% had atypical presentation like head drop, jaw drop and tetany. 63.04% had severe hypokalemia with associated hypocalcemia and hypomagnesemia and delayed recovery. Subclinical hypothyroidism followed by thyrotoxicosis was found to be the most common secondary cause of hypokalemia.

Conclusion: Most common etiology of AFP was GBS followed by hypokalemia both of which can present with areflexia with low grade muscle power. A very rapid progression of weakness with rapid recovery with treatment is strongly suggestive of hypokalemia.

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PROFILE OF PATIENT WITH NEUROCYSTICERCOSIS ADMITTED IN MEDICINE DEPARTMENT OF ASSAM MEDICAL COLLEGE AND HOSPITAL IN THE YEAR 2018

Momee Deka, B C Kalita

Background : Neurocysticercosis is Most Common Parasitic Infection of Human Nervous System, Involves Mainly Brain Parenchyma, Caused by Larval Stage of *Taenia Solium*.

Materials And Methods : Neurocysticercosis cases seen over a period of 11 month (n=84) were studied in medicine ward of amch dibrugarh, for their clinical presentation, demographic profile and outcome. diagnosis was made on basis of clinical feature, ring enhancing lesions on computed tomography of brain and exclusion of other causes.

Results : Majority of cases were male of age group 30-50. most common presentation was generalised tonic clonic seizure. some of them presented with psychiatric manifestation and along with other comorbid condition like cva(infarct). many of them had history of intake of vegetables cultivated in field, where pigs were reared. four patient were died, not because of ncc itself, they died because of other comorbid condition and due to aspiration pneumonitis. majority were belongs to dibrugarh district, followed by tinsukia, choraidew and lakhimpur district.

Conclusion : In neurocysticercosis mortality rate is very low. but it contribute high morbidity. this is a disease of low socioeconomic condition having poor sanitation and poor hand hygiene. so we should give priority to adopt preventive measures.

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A STUDY OF CLINICAL PROFILE OF ADULT PATIENTS WITH ACUTE ENCEPHALITIS SYNDROME COMING TO A TERTIARY CARE HOSPITAL OF NORTH EAST INDIA

Rupak Protim Patir¹, R. M. Doley²,
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Introduction : Acute encephalitis syndrome (AES) is a public health problem in north east India with Japanese encephalitis being a major aetiology. Government of India initiated an adult JE vaccination in Assam in 2011.

Aims : To study the clinical profile and outcome in adult AES and JE patients.

Settings and Design : Adult AES patients from 1st May 2018 to 30th November 2018, cross sectional study.

Methods and Materials : Data was collected regarding clinical history and outcome. JE confirmation was done by CSF and sera samples screened to detect JEV- specific immunoglobulin M (IgM).

Results : 230 (151 males, 79 females) patients of AES, were studied. With average hospital stay of 7 days, 100% had fever, 99.3% headache, 56.7% vomiting, 94.6% altered sensorium, 87.2% dizziness and 61.1% had seizure. 52.17% AES improved, 28.26% suffered residual neurological deficit and 19.56% expired. Out of 45 patients who died, 31(68.89%) patients had a GCS d" 7. JE was detected in 72 patients, equivocal in 21 patients and negative in 137 patients. 28(38.88%) JE patients improved, 20(27.78%) suffered residual neurological deficit and 24(33.33%) expired. JE vaccination was received by 10(4.34%) patients.

Conclusions : Among all the AES cases we studied the clinical presentation of adult AES patients differs from most reported paediatric AES cases with the most common presentation being fever and headache followed by altered sensorium. The mortality and morbidity of AES and JE still remains high with GCS < 7 being a bad prognostic marker. Vaccination is important for prevention.

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DEMOGRAPHIC FEATURES AND ASSESSMENT OF QUALITY OF LIFE IN PATIENTS OF ESOPHAGEAL CANCER UNDERGOING DEFINITIVE CHEMO-RADIATION

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Background : Definitive chemo-radiation(dCRT) is considered as the standard care for locally advanced esophageal cancer but there is dearth of studies from Indian sub-continent

on the efficacy, compliance and treatment outcomes post dCRT.

Aims and Objectives : Assessment of demographic profile and quality of life(QOL) in patients of esophageal cancer undergoing dCRT.

Materials and Methods : This is a hospital based prospective study including 67 cases of esophageal cancer attending Department of Radiotherapy, AMCH. External beam radiotherapy at a total dose of 50Gy was delivered in 25 fractions using three field technique with concurrent chemotherapy with Paclitaxel 50mg/m² and Carboplatin 2AUC given weekly for five weeks. QOL assessment was carried out at the beginning of dCRT, completion of dCRT and at 3 months follow-up using Functional Assessment of Cancer Therapy-Esophageal scoring(FACT-E).

Results : At completion of dCRT comparative data showed a decline in most domains of FACT-E scale but the physical domain, the emotional domain and the FACT-General scores declined significantly while Esophageal Cancer Subscale(ECS) revealed a significant rise. At 3 months follow-up, significant rise in ECS and Trial Outcome Index was noted. An important finding in the results was the increase in the mean scores of all the parameters of FACT-E scale when the data at completion of dCRT and at 3 months follow-up post dCRT was compared.

Conclusion : The quality-of-life score deteriorates once from before treatment due to acute complications of chemo-radiotherapy, but recovers at 2 to 3 months post dCRT in most patients.

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BONE MINERALIZATION DENSITY AT 6-10 YEARS OF AGE IN CHILDREN BORN WITH BIRTH WEIGHT <2500 GM TO THOSE WITH BIRTH WEIGHT ³ 2500 GM – A COMPARATIVE STUDY

Priyangshi Borthakur¹, Zareen Imdad², Reeta Bora³,
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Introduction: Observational studies have shown that low birth weight (LBW) infants(<2500gm) grow to become small adults in comparison to infants born with birth weight ³2500gm. Few studies have shown whether the adult small stature in LBW is because of poor BMD.

Objective: To investigate bone mineral density (BMD) of children born with LBW (<2500gm) at 6-10 years of age and compare them with children of same age group born with birth weight ³2500 gm.

Methodology: The selected subjects for the study are children born in AMCH, Dibrugarh, who are 6-10 years of age at present. Age match children born with birth weight <2500gm were considered as cases and those with birth weight ³2500gm were included as controls. Subjects underwent the Dual-energy

X-ray Absorptiometry method (DEXA) for assessment of the total body composition and bone mineral density (BMD). BMI-for-age is measured according to WHO growth charts.

Results And Observations: Demographic parameters were found to be comparable in both LBW children (<2500gm) and children with birth weight e"2500gm. The LBW children (cases <2500gm) showed high prevalence of thinness and severe thinness (56.41%) and had BMI between -2SD and -3SD from mean compared to 15.38% of thinness and severe thinness in children born with birth weight e"2500gm ($p=0.00$). The BMD of 57.57% in LBW were suggestive of osteopenia compared to 20% children born AFD ($p=0.00$).

Conclusion: Low birth weight is associated with high prevalence of thinness and severe thinness in later childhood. This, in turn, is associated with low BMD, which may be the cause of short stature in LBW children.

Keywords : BMD; short stature; BMI-for-age;osteopenia; low birth weight

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ASSESSMENT OF PSYCHIATRIC MORBIDITY IN HOSPITALIZED CASES REFERRED TO PSYCHIATRY OPD IN A TERTIARY CARE SETTING

Jeplin Bez¹, D.J Bhuyan²

Background : Psychiatric morbidity is not uncommon in patients admitted in the various departments of a tertiary care hospital. The diagnosis of psychiatric disorders relies on referral to a consultation liason psychiatry team.

Aim: A cross sectional study was conducted to assess the Psychiatric morbidity in hospitalized referred cases in a tertiary care setting.

Materials and Methods: Four hundred and eighty seven patients who were referred to the department of Psychiatry from 1st July 2017 to 30th June 2018 during OPD hours, were assessed for the psychiatric morbidity in Assam Medical College and Hospital, Dibrugarh, using ICD-10 guidelines.

Results: Out of a total of 487 referrals, 238(48.87%) referrals were from the department of Medicine, 86(17.65%) from Surgery, 55(11.29%) from Orthopedics, 30(6.16%) from Obstetrics and Gynaecology, 28(5.74%) from ENT Department, 16(3.28%) from Cardiology, 9(1.84%) from TB and Chest, 8(1.64%) from Neurology, 7(1.43%) from the ICU, 6(1.23%) from Burns and Plastic and 4(0.82%) from the Department of Pediatrics.

Amongst the Psychiatric morbidity, the most common cause was Alcohol related disorders including dependence, withdrawal and intoxication which comprised of 197 cases (40.45%).

Conclusion: Psychiatric comorbidity in physically ill patients has generated significant interest in recent times and diagnosis of the same has importance in holistic management of patients, so as to improve the quality of life and better medication adherence.

Keywords : consultation liason psychiatry, alcohol related disorder.

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PROFILE OF PATIENTS ATTENDING DRUG DE-ADDICTION CENTRE OF ASSAM MEDICAL COLLEGE AND HOSPITAL

Monalisa Boro¹, Dhrubajyoti Bhuyan², Tribeni Bhuyan³

Background : Substance abuse is not only a problem of an individual but also of the family and the society. Hence, it is a major concern in public health sector.

Aim : To assess the profile of patients attending drug deaddiction centre of Assam Medical College and Hospital

Methods : A descriptive cross sectional study was undertaken involving all the patients admitted in drug deaddiction centre in Department of Psychiatry of Assam Medical College and Hospital, Dibrugarh, during the time period of 1 st June/ 2017 to 31st May/2018.

Results : Out of 858 patients admitted during the study period, the mean age of patients was 38.15 years, 291(33.92%) patients were admitted for substance abuse with mean duration of hospital stay of 10.43 days, out of this 91.43% were alcohol abuse alone, of which 37.97% were diagnosed as alcohol withdrawal (not in delirium). 38.14% patients belong to 30-39 age group. 34.02 % of patients belong to lower socioeconomic status.

Conclusion : It has been found that patients admitted for substance related disorder mostly belong to 30-39 years age group, which is the productive age group, hence preventive, curative and rehabilitation strategies should aim this group for better productivity

Keywords : de-addiction, substance abuse, alcohol withdrawal

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GREY SCALE ULTRASONOGRAPHY AND RENAL DOPPLER IN DIABETIC PATIENTS

Bhaskar Jyoti Saikia¹, Dhrubajyoti Borpatragohain² Subhalakshmi Das³

Aims & Objectives : To evaluate role of USG and renal Doppler for detection of renal changes in known cases of diabetes mellitus & correlate sonographic changes with laboratory changes.

Materials & Methods : 50 patients having type II diabetes mellitus were randomly selected, categorised into 4 subgroups and evaluated using TOSHIBA APLIO 500 USG machine. Both kidneys were studied for dimensions, cortical thickness, echogenicity and resistive indices from interlobar arteries and biochemical tests (Serum creatinine and urine albumin) were analysed. Correlations were studied between grey scale USG, Doppler USG and biochemical parameters.

Results : There was progressive increase in the severity of nephropathy with increasing age and mean duration of diabetes. Changes in the renal parenchymal echogenicity were seen only in overt nephropathy and renal failure subgroup. Mean renal length and cortical thickness of both kidneys were highest in preclinical subgroup. Most of the patients in preclinical group had normal Intrarenal arterial resistive index (RI) value while patient belonging to other 3 subgroups had raised RI value (>0.7).

Conclusions : Grey scale USG changes were noted in few patients and only in advanced stages of diabetic nephropathy (DN) but RI values were increased in most of patients belonging to subgroups 2,3 and 4 and even in patients having normal grey scale features. RI values showed positive correlation with serum creatinine and microalbuminuria values suggesting complementary role of Doppler ultrasound in DN & prompt clinicians for aggressive management of such patients to delay the progression of nephropathy.

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SPECTRUM OF MAGNETIC RESONANCE IMAGING FINDINGS IN SPINAL TUBERCULOSIS WITH SPECIAL INTEREST TO DIFFUSION WEIGHTED IMAGING AND APPARENT DIFFUSION COEFFICIENT MAPPING WITH CBNAAT CORRELATION (IMAGING GUIDED ASPIRATION).

Ahmed Reza Abdullah¹, Mary H. Bhuyan²
Basanta Laskar³, Priyam Goswami⁴

Objectives of Study : To study the role of Magnetic resonance imaging in diagnosis of spinal tuberculosis, to evaluate the utility of diffusion characteristics and apparent diffusion coefficient mapping in spinal tuberculosis and to confirm the MRI findings of pre and para-vertebral, psoas and others (like subcutaneous) abscesses with CBNAAT test.

Materials and Methods : 38 patients with suspected spinal tuberculosis were subjected to MR imaging (1.5 TESLA SIEMENS MAGNETOM AVANTO B15 system). The findings were correlated with CBNAAT test in patients who had abscess.

Results : Out of a total of 38 patients, most common level of involvement we found was thoracic followed by lumbar vertebral level in (n=11, 28.94%) & (n=10, 26.31%) respectively. We evaluated the distribution of ADC values of the abscess with respect to CBNAAT result. The mean ADC in CBNAAT positive cases came out to be 1075.00×10^{-6} mm²/sec and the mean ADC in CBNAAT negative cases to be 1461.857×10^{-6} mm²/sec. In total 8 cases of multifocal Pott's, we found 75% patients were rifampicin resistant. Remaining 25% were rifampicin sensitive on CBNAAT testing. This showed almost a direct relation between multifocal Pott's and rifampicin resistance.

Conclusion: Combined use of MRI and CBNAAT is rapid and accurate tool to diagnose tuberculosis and rifampicin sensitivity and resistance in patients with Pott's. In patients having posterior element lesion and central type of lesion, combination of both MRI spine and CBNAAT is rapid and accurate. In our study, we found almost a direct relation between multifocal Pott's and rifampicin resistance.

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CLINICAL STUDY OF ANKYLOSING SPONDYLITIS WITH SPECIAL REFERENCE TO CARDIOPULMONARY MANIFESTATION

Nayanmoni Dutta¹, P Dihinia², Bishal Agarwalla¹,
S M Baruah³, A Dutta³

Background : Ankylosing spondylitis is an inflammatory disorder of unknown cause that primarily affects the axial skeleton. Characteristic cardiac abnormalities in AS are aortitis, aortic regurgitation, and conduction abnormalities that are seen in upto 9% of patients with AS. The pulmonary manifestations of the disease include fibrosis of the upper lobes, interstitial lung disease and ventilatory impairment, sleep apnoea and spontaneous pneumothorax.

Objectives : To study the clinical manifestation of ankylosing spondylitis with special reference to cardiopulmonary manifestation.

Materials And Methods : This study was a hospital based observational study carried out on 65 patients of ANKYLOSING SPONDYLITIS, who fulfil the modified New York criteria and was admitted or attended various outpatient departments of Assam Medical College and Hospital, Dibrugarh, during a period of one year from July 2012 to June 2013.

Results : Out of the total 65 patients, 52 were male and 13 were female, giving male to female ratio of 4:1. HLA-B27 was

RENAL MANIFESTATIONS IN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS WITH SPECIAL REFERENCE TO ANTINEUTROPHIL CYTOPLASMIC ANTIBODY

Sonali Dey¹, Sanjeeb Kakati²,
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Background : Lupus nephritis (LN) is one of the most serious complications of Systemic Lupus Erythematosus(SLE). Vasculitis in SLE patients is a well documented phenomenon. ANCA has been reported in 3-69% of SLE patients. It has been demonstrated that ANCA is an independent risk factor for poor renal outcome in LN patients.

Objectives : To study ANCA prevalence in SLE patients and its association with Renal involvement and disease activity

Methods : The study was a hospital based cross-sectional study carried out in 200 SLE patients. Disease activity was assessed by SLEDAI score. The detection of ANCA antibodies and ANA were done by Indirect Immunofluorescence(IIF). The other antibodies were detected by Lineimmunoassay and C3, C4 by nephelometric immunoassay.

Results : In a total of 200 cases the prevalence of ANCA was 27.5%; predominant pattern was p-ANCA in 99% cases. The incidence of oliguria/anuria, facial puffiness/edema, raised serum creatinine, proteinuria and the presence of renal cast were significantly higher in ANCA positive group as compared to ANCA negative group (p-value = 0.016, 0.04, 0.00, 0.001 and 0.016 respectively). In our study the positive rate of anti dsDNA, anti nucleosome and anti histone antibodies were higher significantly in ANCA positive group than in ANCA negative group (p-value = 0.04, 0.00, 0.003 respectively). Patients with ANCA had significantly low C3, C4 and high SLEDAI score (p-value= 0.03, 0.02, 0.00 respectively)

Conclusion : The present study of ANCA in SLE showed that patients with ANCA positivity presented with more severe kidney injury. ANCA can be a useful complementary parameter to predict vasculitis in SLE and indication for aggressive immunosuppressive therapy.

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A COMPARATIVE STUDY OF ATROPINE ALONE AND ATROPINE PLUS PRALIDOXIME IN THE MANAGEMENT OF ORGANO-PHOSPHOROUS POISONING

John Kumar Das¹, S M baruah²

Background : Since its discovery in 1956, pralidoxime has

found to be positive in 90.77% of patients. Majority of patients had B/L radiologic sacroilitis(92.3%). Inflammatory low back pain was the most common symptom. Cardiac and pulmonary involvement is seen in 6.15% patients. Out of the 65 patients cardiac involvement was found in 4(6.15%) patient Pulmonary involvement was found in 4 out of 65 patients, 2 of them are male and 2 female. Most of them were asymptomatic at the time of presentation.

Conclusion : Cardiopulmonary involvement was found in 6.15% of patients. Cardiopulmonary manifestation was seen in patient with longer duration of disease, and majority of them were asymptomatic and were detected only upon investigation.

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HEMATOLOGICAL PROFILE OF SYSTEMIC LUPUS ERYTHEMATOSUS IN SMCH: A HOSPITAL BASED STUDY

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Introduction: Systemic lupus erythematosus (SLE) is a multisystem autoimmune disorder, the expression of which is greatly influenced by the combined effect of genetic, environmental, demographic and geographical factors. Hematological abnormalities are common in SLE. All the cellular elements of the blood & coagulation pathway can be affected in SLE patients. This study was conducted to estimate the proportion of patients with hematological abnormalities as the initial manifestation of SLE.

Methods: The study was conducted at Silchar Medical College & Hospital from July 2016 to August 2018. The occurrence and significance of haematological abnormalities were analysed in 15 prospectively studied patients with systemic lupus erythematosus.

Results & Observations: Hematological abnormalities were present in 13 patients. Anemia was the most common hematological abnormality detected in 11(84.6%). Iron deficiency anemia was found in 8(72.2%), Anemia of chronic disease in 2(18.1%) and Autoimmune hemolytic anemia in 1(0.09%) were the most common cause of anemia detected. 1 patient was having lymphopenia & 1 was having thrombocytopenia.

Conclusions: Hematological manifestation is the most common presenting manifestation of SLE in people of barak valley, India. The study concludes that treatment of hematological abnormalities is challenging because the treatment itself can cause undue complications sometimes such as granulocytosis due to infection or the use of high doses of steroids. It is important to take these factors into consideration for disease therapy and management.

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been used in the management of organo-phosphorus poisoning(OP) in addition to atropine. While efficacy of atropine is proved beyond doubt, clinical experience with pralidoxime has led to widespread controversies about its efficacy in treatment of OP poisoning.

Objectives : The aim of the study was to compare the efficacy of add-on pralidoxime therapy over therapy with atropine alone in OP poisoning.

Methods : Total 103 patients between the age group of 12 to 65 years, treated for OP poisoning and matched for baseline characteristics, were included in two groups based on treatment received as "Atropine only"[who could not afford pralidoxime] or "Atropine plus pralidoxime(PAM)". Main outcomes of the study were total hospital stay and mortality. Hospital stay was compared using 't' test while mortality was compared using Fisher's exact test.

Results : The mortality rate and duration of hospital stay in the two treatment arms failed to show any statistically significant difference.

Conclusion : Our data supports the use of only atropine over atropine plus PAM in patients with OP poisoning in the context of poor socio-economic condition, on account of no significant difference /reduction of hospital and mortality in the latter group. However, a prospective study with a larger sample needs to be conducted, to be able to draw a definitive conclusion.

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EARLY HYDRATION THERAPY IN MUSHROOM POISONING IMPROVES MORTALITY AND MORBIDITY

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Background : Mushroom poisoning is frequently encountered in Upper Assam causing significant morbidity and mortality.

Aims : This study was undertaken as a prospective case control study comparing patients treated with early hydration and patients treated symptomatically with normal standard of care to study the effect of early hydration therapy on the mortality and morbidity

Methods and Materials : All patients of mushroom poisoning were given 3-4 L of IV fluids per 24 hrs unless signs of volume overload were seen. Continuous nasogastric aspiration was instituted. Other standard of care including Silimarin, N-acetylcysteine, Penicillin G and Vitamin C. They were compared with old cohort of patients whose complete records are available

Results : We studied 94 cases of mushroom poisoning (39.4% male and 60.6% female). 13(13.8%) patients expired. Loose stools (94.7%), Vomiting (80.9%) and pain abdomen(72.3%) were the most common symptoms. Icterus and Neurological

manifestations were common. When we compare these 94 cases with our old cohort of 48 patients, we noticed significant mortality benefit (13.8% vs 43.7%). Hypovolemic shock was only 2.13% as compared to 22.9%. Acute liver failure, acute kidney failure and bleeding manifestations were 39.36%, 9.57% and 3.19% respectively in comparison to 64.58%, 27% and 14.58% respectively in those who were treated only symptomatically. The Odds ratio of acute liver failure was 0.356 and acute kidney injury was 0.285

Conclusion : Early hydration therapy and nasogastric aspiration of bile significantly reduces the morbidity and mortality in patients with signs and symptoms of mushroom poisoning.

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SICK EUTHYROID SYNDROME IN ACUTE ORGANOPHOSPHORUS POISONING

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Introduction : Sick Euthyroid Syndrome can be described as abnormal findings on thyroid function tests that occur in the setting of a non thyroidal illness (NTI) without preexisting hypothalamic-pituitary and thyroid gland dysfunction. A reduced level of serum total triiodothyronine (T3) is the most common abnormality in patients with acute illness [1] and can be detected within 2 hours after the onset [2]. As the severity of illness progresses, a more complex syndrome associated with low levels of T3 and T4 develops [3,4]. Recovery from the underlying illness is accompanied by disappearance of the thyroid abnormalities.

Objectives : 1. To analyze the incidence of sick euthyroid syndrome in patients admitted with pesticide poisoning in Department of General Medicine, Silchar Medical College
2. To study the correlation between the incidence of sick euthyroid syndrome and its association with outcome.

Materials and Methods : Single centered observational study from June 2018 to November 2018. 60 Cases of acute organophosphorous poisoning were included in the study. Those with previous history of thyroid disorders were excluded from the study.

Results : 1. Incidence of poisoning in females (38) was more than males (22).

2. Sick euthyroid syndrome was seen in 12 out of 60, females (11.6%) were more affected than males (8.3%).

3. Out of the patients with sick euthyroid syndrome, 4 expired (25%), of which 3 had abnormal T3, T4 and TSH.

Conclusions :

1. The prevalence of sick euthyroid syndrome among individuals with acute pesticide poisoning was 20 %.

2. Mortality was high in those with sick euthyroid syndrome.

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A CASE REPORT OF A 48 YEARS FEMALE WITH SLE WITH SECONDARY SJOGRENS WITH ALL

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Abstract : Systemic lupus erythematosus is a multisystemic disease. Sometimes other connective tissue disorders are associated with SLE like Sjogren's syndrome. Haematological abnormalities are a very common finding. Though it has a very rare association with ALL it is still possible, and we discuss in the following paragraphs regarding such a case.

Introduction : Systemic Lupus Erythematosus is a autoimmune disorder affecting predominantly the musculoskeletal and haematological systems. Association of SLE and haematological malignancies is widely reported in adults⁽¹⁻⁴⁾. Most of the data show that the malignancy is detected after the diagnosis and treatment of SLE⁽⁴⁾. Usually, SLE precedes the onset of lymphoproliferative diseases,⁽⁵⁻⁸⁾ but the neoplasia can occur earlier⁽⁹⁾ or simultaneously.⁽⁹⁾

Sjogren's Syndrome (SS) is a chronic autoimmune disorder where t-cells destroy the salivary and lacrimal glands producing dry eyes and dry mouth. SS may involve any organ system of the body. Many patients experience debilitating fatigue and joint pains. When SS appears along with another primary disease like rheumatoid arthritis, lupus or scleroderma, it is known as Secondary Sjogren's Syndrome.

SLE with Lymphoid leukaemia is a rare phenomenon. Lugassy G, et al described 3 cases of CLL with SLE. There are only five pediatric cases of SLE with ALL reported in literature, two developed simultaneously and three developed SLE after successful treatment of ALL.⁽¹⁰⁻¹²⁾

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GENDER DYSPHORIA WITH COMORBID PSYCHOSIS- A CASE REPORT

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Key Words : Gender Identity, transsexual, transgender, assigned gender, natal gender, gender role.

Introduction : Though thought to be rare, there has been a significant increase in the reporting of the cases with Gender Dysphoria across the world due to increase in its awareness and acceptance, owing to various psychosocial and legal changes made recently.

The systematic study regarding the prevalence of Gender Dysphoria and associated psychiatric co morbidities is very difficult to conduct due to difficulty in finding the target population because of concealment of identity owing to the stigma associated with it. Hence, most of the scientific literature available is based on the reporting of such cases. There are very few cases reported from Assam and this part of the country.

Hence, here we are reporting a case of Gender Dysphoria with co morbid psychosis.

Case Report : A 19 years girl presented in psychiatry OPD with normal development of secondary sexual characteristics, no history suggestive of hormonal imbalance, no history of childhood abuse, presenting with symptoms suggestive of psychosis. On further evaluation she was found to have Gender Dysphoria with desire to undergo Gender reassignment surgery.

Conclusion : Clinician should not be biased with the presentation of cases. Interview regarding Gender Dysphoria should be made for every case, irrespective of their presentation as this may help in better detection of such cases.

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PHANTOM LIMB : A CASE REPORT WITH REVIEW

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Introduction : Phantom limb pain (PLP) is an interesting and often very troubling condition, defined as the pain in the residual portion of the amputated limb and phantom sensations are the nonpainful sensations experienced in the body part that no longer exists. It is commonly seen after trauma, vascular problem, cancer, congenital limb deficiency etc.

Case Report : A 27 years old male with a history of traumatic amputation of left upper limb following fall from bike presented to the Psychiatry department of AMCH with the symptoms of pain, burning sensation, feeling of tightness and crawling sensation over the severed limb for 10 months, low mood and decreased sleep for 8 months. Mental status examination revealed dysphoric affect, preoccupation with the physical symptoms and tactile hallucination. The patient was treated and maintaining well on Gabapentine and Nortryptiline combination therapy.

Conclusion : PLP is common and disabling entity. Much has been learned about pathophysiology and management of PLP with the advancement of medical science. But there is still no one unifying theory relative to the mechanism of PLP. Mechanism-based treatments are still evolving and most treatments are directed towards neuropathic pain.

Key Words: Phantom sensations, neuropathic pain, dysphoric affect.

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NUTCRACKER SYNDROME : A POTENTIALLY UNDER DIAGNOSED AND RARE CAUSE OF PAINLESS HEMATURIA

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The nutcracker phenomenon refers to compression of the left renal vein between the abdominal aorta and the superior mesenteric artery with impaired blood flow often accompanied by distension of the distal portion of the renal vein. Although it may be associated with significant morbidity, the diagnosis of nutcracker syndrome is often missed even by imaging if not

thought so. A great deal of communication is essential in between radiologist and clinician for diagnosis. We describe here the case of a 15-year-old male with painless hematuria and left flank pain. He had taken consultation with several different specialists for 8 months but his diagnosis was missed and finally revealed on CT angiography in our unit. Considering the pubertal age of the patient, conservative management with regular follow up was opted, followed by resolution of symptoms after 6 months, currently on follow up and advice.

Keywords: Nutcracker syndrome, Painless hematuria, Renal vein

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INFANT WITH STONY-HARD SKIN AND LIMITED JOINT MOBILITY – A DIAGNOSTIC DILEMMA

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Introduction : Stiff skin syndrome(SSS) is a rare connective tissue disorder characterised by stony-hard skin, limited joint mobility, variable hypertrichosis. There is no visceral, musculoskeletal or immunological abnormality.

Case Report : A 2 month female presented with thickened skin since one month of age which was gradually progressive in caudo-cephalic direction. On examination there was presence of dense, woody, ill-defined, indurated, non-tender plaques. There was no pruritus or hypertrichosis. She was born by normal vaginal delivery and premature by 21 days. The infant was otherwise healthy with normal development. All routine investigations including serum calcium was normal. Computed tomography of thorax was normal and scleroderma panel was negative. The histopathological examination(HPE) of skin showed (hematoxylin-eosin stain) mildly acanthotic epidermis with a flat even base, dermis was mildly sclerotic with no signs of inflammation and subcutaneous fat appeared normal.

On the basis of above findings a diagnosis of SSS was established.

Discussion and Conclusion : There are only 40 cases of SSS reported in the literature and none report any successful therapy except rehabilitation exercises. Since SSS is easily confused with scleroderma, the clinician needs to be more vigilant and also the role of prematurity with SSS needs to be further elucidated.

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A CASE REPORT ON INFECTION OF MOLLUSCUM CONTAGIOSUM AND PENICILLIUM MARNEFFEI WITHIN SAME SKIN LESION IN A HIV POSITIVE PATIENT

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Keywords : HIV, Molluscum contagiosum, Penicillium marneffe, opportunistic infection, skin lesions.

Introduction : Penicillium marneffe and Molluscum contagiosum are amongst the opportunistic infections reported in HIV positive patients. Penicilliosis, a rare opportunistic infection, is endemic in tropical Asia and was discovered in 1956 as an infection of bamboo rats. Few cases have been reported from Myanmar and Manipur from time to time. However combination of both within same skin lesion in an HIV positive patient is of rare incidence.

Case : A 35 year old male patient presented to us with fever and weight loss for the past 6 months and skin lesions for the past 4 months. On examination, patient was febrile with presence of papules with central umbilications over the face and plaques and papules all over the trunk with oral candidiasis. Systemic examinations were within normal limits. Initial clinical diagnosis was giant Molluscum contagiosum infection. However, laboratory examination showed patient to be HIV 1 reactive with a CD4 count of 156. Histopathological examination of the biopsy sample from skin lesions revealed features suggestive of both Penicillium marneffe and Molluscum contagiosum. Fungal culture report was positive for Penicillium marneffe.

Conclusion : Molluscum contagiosum is not uncommon, but penicilliosis itself is of rare occurrence and presence of both within same skin lesion is even rarer. Therefore in any skin lesion of a HIV reactive patient Penicillium marneffe infection should also be sought for.

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UNUSUAL INFECTIOUS CAUSE OF ANAEMIA : A CASE REPORT

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Introduction : All chronic infections can cause anaemia. Due to high prevalence of infectious diseases worldwide, infections are the second most common cause of anaemia after nutritional iron deficiency anaemia. The most common infections causing anaemia are chronic infection of female reproductive system, abscesses, osteomyelitis, bacterial endocarditis, tuberculosis, malaria and HIV infection.

Here, we present a case of unilateral adrenal histoplasmosis with anaemia of chronic disease.

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HASHIMOTO'S ENCEPHALOPATHY : A CASE REPORT

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Hashimoto's encephalopathy is a rare and ill-defined disease which causes significant clinical dilemma. Diagnosis can be made only after ruling out other causes of encephalopathy. The etiology is autoimmune, but prognosis is excellent when diagnosed promptly and treatment with steroids initiated as early as possible. Here, we report a case of 74 year old female presented with neuropsychiatric features ultimately diagnosed as having Hashimoto's encephalopathy. Patient was treated with steroid pulse therapy (methyl prednisolone i.v).

Keywords: Hashimoto's encephalopathy, autoimmune, steroid pulse therapy.

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HYPERCALCEMIC ENCEPHALOPATHY : TWO RARE CASES

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Case 1 : A 72-year-old female was admitted into the hospital with the history of increase frequency of urination, trembling of hands and feet and altered sensorium. Her Glasgow coma scale was E2V2M5. Five months back she developed pain in knees, hip and back for that bone mineral density was done which revealed severe osteoporosis. The patient was prescribed Injectable Vitamin D, oral Vitamin D supplement and Calcium tablets. Routine biochemistry revealed hypercalcemia and she was treated with I/V fluid, diuretics and glucocorticoids. On further evaluation, she was detected to have very high serum 25(OH) vitamin D level (>150 ng/dl) and 1,25(OH)₂Vitamin D level (304ng/dl).

Case 2 : 75- year- old male patient came to the hospital in an unconscious state on endotracheal tube and Bain circuit with high flow oxygen and high dose inotropic support. His Glasgow coma scale was E1VTM1. In 2012, patient had a fall at home and sustained a fracture in the left humerus and treated conservatively. In 2016 he was diagnosed to have compression fractures in D12-L3 vertebrae and treated conservatively. In 2017, patient had 2 episodes of seizure at home and was rushed to a local hospital. Imaging findings were that of multiple lytic lesions of varying sizes in the skull, spine with the possibility of metastasis. Serum electrophoresis for M band and Immunofixation test was sent along with Beta 2 microglobulin but all tests were normal. Bone marrow biopsy suggested high- grade B-cell lymphoma.

Keywords : Hypercalcemia, Vitamin D toxicity, High- grade B-cell lymphoma.

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SCRUB TYPHUS MANIFESTING AS SEPTIC SHOCK WITH ACUTE KIDNEY INJURY

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Introduction : Scrub typhus is a rickettsial disease of variable severity caused by *Orientia tsutsugamushi*. Many cases remain undiagnosed because of its nonspecific manifestations. We report an unusual case of scrub typhus in a patient who presented with septic shock but did not have the pathognomonic eschar or lymphadenopathy. Rickettsial diseases should be included as a differential diagnosis in acute febrile illnesses in areas where they are endemic. The lack of eschar or

lymphadenopathy should not be used as criteria to rule out scrub typhus.

Case Presentation : A 52 year old diabetic and hypertensive lady presented with acute onset of pain in bilateral lower chest and upper abdominal area with dyspnea and oliguria for three days preceded by one day of low grade fever. On examination she was afebrile, tachypneic and in shock with bilateral basal crepitations. Conjunctival suffusion was present. No lymphadenopathy, rash or eschar was present. SpO₂-70%. Laboratory investigations revealed: Creatinine-2.51mg%; ECG-sinus tachycardia; Trop I-731.6 ng/L; Serum amylase-120; Lipase-210; HbA1c-7%; Neutrophilic leukocytosis, severe thrombocytopenia and elevated liver enzymes. She was initially treated with intravenous Meropenem, vasopressor support and platelet transfusions. However, her condition did not improve. Empirical treatment with doxycycline 100 mg twice daily was initiated. Fever profile reports showed Scrub typhus positivity. The patient improved drastically and was discharged.

Conclusion : Awareness of rare manifestations of scrub typhus such as sepsis and prompt administration of empirical doxycycline therapy in suspicious cases can help in reducing the morbidity and mortality associated with rickettsial diseases.

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CHILDHOOD PSYCHOSIS DUE TO PERINATAL HYPOXIC INSULT : A CASE REPORT

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Childhood and adolescent onset of psychiatric symptoms has been linked to foetal and neonatal complications arising out of hypoxic ischemic insult. Perinatal hypoxia/ischemia is now known to result in selective disturbances of the dopaminergic system within the brain that can persist and manifest in late childhood or early adolescence. Here, we are presenting the case of a 13 year old girl who presented to the Psychiatry Clinic for restlessness, tendency to go out, increased anger, abnormal hand gestures, disorganized and disinhibited behavior, impaired recent memory and signs of cerebellar involvement on clinical examination, provisionally diagnosed to be a case of other mental disorders due to brain damage and dysfunction and to physical disease (F06) as per International Classification of Diseases-10 criteria. Magnetic Resonance Imaging of the brain revealed diffuse atrophic changes of the cerebrum and cerebellum along with enlarged extra-cerebral CSF spaces and bilateral asymmetrical areas of T2/FLAIR hyperintensity in bilateral temporal and frontoparietal white matter, representative of sequelae of hypoxic insult during neonatal period. It retrospectively throws light on the link between perinatal hypoxic ischemic injury and development of psychiatric symptoms in later life. This case report thus, upholds the existing available literature on the development of psychiatric symptoms in childhood-adolescent period associated with perinatal hypoxia/ischemia.

Key words: organic brain disease, neurocognitive disorder, cerebral atrophy.

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