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9TH ANNUAL NEUROLOGY RESEARCH DAY 2015

ABSTRACTS SHIFA INTERNATIONAL HOSPITAL, ISLAMABAD

EFFECT OF BREAKFAST ON MENTAL PROFICIENCY AMONG UNDERGRADUATE STUDENTS OF MEDICINE.

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INTRODUCTION

Forty-seven percent of the populace has an inadequate breakfast, thus for exploration of the effect of this inadequacy stems this study. Stimulants such as caffeine (which increase mental alertness) and starvation (which causes the body to release adrenaline, and dopamine) must be compared to a healthy breakfast and its frequency in correlation to mental efficiency to yield true correlations to cognitive power.

PRIMARY OBJECTIVE

The core aim was to find correlations between different aspects of breakfast to mental proficiency/overall academic performance.

SECONDARY OBJECTIVE

Prevalence factors related to breakfast that could vary short-term mental capability i.e. I.Q.

METHODOLOGY

Part one of the two staged, single blind, quantitative analysis via cluster sampling on the student populace of FUMC, was carried out over four months, secondly a six day process of randomized IQ testing on a controlled sample with 3 definitive stages of appetite yielded quantitative results. Sample sizes of 100 respondents for long-term and 15 respondents for short-term mental proficiency were selected via convenient sampling. Data collection was followed by analysis via IBM SPSS to yield simple chi-square and pearsons-correlation values to find significance of correlations of variables i.e. frequency, gender.

RESULTS

The results showed that there is an association of "how many times a week do you eat breakfast" with "marks achieved in most recent examination" which is statistically significant (p-value 0.044). Furthermore there is a positive correlation between "marks achieved in well-fed state" with "marks achieved in stimulated state" ($r=0.259$) and

positive correlation with marks achieved in starved state" ($r=0.355$).

CONCLUSION

Significant p-value showed a positive relationship of break fast with mental proficiency. Further more research on large sample would be encouraged.

SHORT TERM PROGNOSTIC SIGNIFICANCE OF CLINICAL VARIANTS AND PRESENTATION CHARACTERISTICS ASSESSED VIA ADMISSION & FOURTEEN DAYS HUGHES IN GUILLAIN- BARRÉ SYNDROME

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INTRODUCTION/BACKGROUND

Guillain-Barré syndrome has a number of sub- types with evidence of different immunological mechanisms and variant clinical presentations but prognostic significance of these clinical syndromes is not clear.

AIM/OBJECTIVE

The objective of this study was to determine short term prognostic significance of clinical variants and presentation characteristics of GBS.

METHODOLOGY

This study was carried out from 1st Jan 2014 to 31st Dec 2014 at department of neurology, PIMS, Islamabad on one hundred patients of GBS aged more than ≥ 12 years. Admission and 14 days Hughes were compared with clinical variants and presenting features.

RESULTS

77 (77%) of patients' presentations were typical (rapidly ascending flaccid quadriparaesis with areflexia). Dysautonomia was present in 24 (24%), respiratory involvement in 22 (22%), bulbar weakness in 14 (14%). In 20 (20%), GBS was preceded by fever, by respiratory tract infection/sore throat in 21 (21%) while by diarrhea in 18 (18%). Amongst all, only 4 (4%) had previous single episode of GBS. Facial and or bulbar weakness, respiratory compromise and dysautonomia were independent predictors of need for mechanical ventilation ($p<0.05$) but only dysautonomia and preceding diarrhea predicts poor short term Hughes ($p>0.05$).

CONCLUSION

Clinical presentation of GBS patients has direct effect on short term outcome. GBS patients having typical presentation have good short term prognosis. Dysautonomia is a predictor of poor short come outcome. While those put on ventilatory support might have ventilator / ICU related complications, need of mechanic ventilation does not per se affect short term outcomes. Patients having preceding diarrhea usually end up dependent. Those giving history of predominant limb weakness, those self-complaining of dysphagia on open ended questioning as primary complaint, most of the quadriparetic and those with dysautonomia are more likely to present in Hughes 4 (bed bound status) at admission. Those experiencing dyspnea as predominant feature at presentation are likely to end up on ventilator support despite immediately starting plasma exchange or IVIG.

AWARENESS, KNOWLEDGE AND ATTITUDE TOWARDS EPILEPSY AMONG GENERAL POPULATION VISITING A TERTIARY CARE HOSPITAL IN ISLAMABAD, PAKISTAN

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INTRODUCTION/BACKGROUND

Epilepsy is a common neurological disorder and is often viewed with social stigma in both developed and developing countries. Many misconceptions and myths, regarding both the cause and course of this disease exist, often associated with or attributed to insanity, sorcery or other supernatural causes. The lack of knowledge regarding its treatment may also leave many deprived. In Pakistan approximately 10 out of 1000 people suffer from epilepsy; however data regarding awareness of the disease is unavailable. Our study aims to address this need and determine a preliminary picture regarding awareness, knowledge and attitude of our population towards epilepsy.

AIM/OBJECTIVE

To determine the awareness, knowledge and attitude towards epilepsy among general population visiting a tertiary care hospital in a metropolitan city of Pakistan.

METHODOLOGY

A cross-sectional study was carried out using modified Caveness and Gallup questionnaire. Randomly selected persons visiting the outpatient department were included in the study after taking an informed consent. They were interviewed by trained medical students and data was analyzed using SPSS v.21.

RESULTS:

A total of 200 people, age 18 and older were interviewed

by the five researchers themselves and 68.4% of them had read or heard about epilepsy. A 59.2% of the individuals considered these patients to be as intelligent as others, while 11.3% considered epilepsy to be a form of insanity. Around 18.7% said they would allow their daughter to marry a person with epilepsy while 19.4% said they would allow their son to marry a person with epilepsy. Only 18% of the interviewees identified its cause to be of brain origin.

CONCLUSION

Our study shows that overall knowledge and attitude towards epilepsy is poor in our population compared to other Asian states. There is, in particular, very low acceptance regarding marriage to a person with epilepsy. Further, larger scale studies are required to determine a more accurate picture of epilepsy awareness and its associated problems in Pakistan. Public awareness programs are needed to improve perception and knowledge which will help in better acceptance of the disease and its sufferers.

INFANTILE SPINAL MUSCLE ATROPHY-CLINICAL SPECTRUM AND HISTOPATHOLOGICAL DIAGNOSIS

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INTRODUCTION/BACKGROUND

BACKGROUND

Infantile spinal muscle atrophy is an autosomal recessive disorder characterized by degeneration of lower motor neuron with resulting progressive muscle weakness. It is a leading genetic cause of death in infancy and consanguineous marriage increases the risk of the disease in the family. Muscle biopsy findings are important because they help to establish the diagnosis, but they do not help predict the severity of disease among infants with this condition.

AIM/OBJECTIVE

The objectives of this study were to determine the frequency of infantile muscle atrophy in pediatric age group (0-12 years), and gender distribution of this disorder.

METHODOLOGY

MATERIALS AND METHODS

The study included consecutive cases of muscle biopsies of the symptomatic/affected children taken at NIRM hospital and in pediatric department of Federal Government Polyclinic, PGMI, Islamabad, during a period of 03 years (Jan 2012- Jan 2015) with range of age from 0-12years. It was a retrospective study. The histopatho-

logical evaluation of these lesions was performed on H & E stained sections of paraffin embedded tissues.

RESULTS

In total of 32 cases 12 cases of neurogenic atrophy were diagnosed histologically, 16 cases of muscular dystrophy, 1 case of myositis ossificans and 3 were unremarkable. The cases of neurogenic atrophy showed male predominance. 9 out of 12 cases were males and 3 were female patients, and histopathology showed rounded muscle fibers with group atrophy of most of the fibers; and was correlated with the clinical features and enzyme levels including CK and LDH. The type of SMA diagnosed more frequently was type 1⁽⁹⁾ cases, 1 case of juvenile SMA and one case of adult SMA and one case of spinal muscle atrophy with respiratory distress type 1 (SMARD1).

CONCLUSION

The study highlights significant number of spinal muscle atrophy cases with predominance of type 1 i.e. Infantile Spinal muscle atrophy (ISMA) in a very short period of time which needs more elaboration and studies to know the exact frequency of disease.

SEASONAL VARIATION IN OCCURRENCE OF GUILLAIN-BARRÉ SYNDROME (GBS) IN LOCAL POPULATION.

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INTRODUCTION/BACKGROUND

Guillain Barre Syndrome (GBS) is an acute acquired, immunemediated polyradicular neuropathy and is one of the most common cause of acute flaccid paralysis with potential of life threatening complications. Although there has been reports of seasonal variations in occurrence of GBS but no confirmed constant seasonal variations is yet known.

AIM/OBJECTIVE

To find out the seasonal variations in occurrence of GBS in our local population.

METHODOLOGY

This is the retrospective cross-sectional study carried out at Neurology Department Mayo Hospital Lahore in collaboration with various private and public hospitals in Punjab. The study period was two years from March 2013 till February 2015. The patients fulfilling the Ashbury and Cornblath criteria for GBS and those who required plasmapheresis were included in the study. Exclusion criteria included patients of neuropathies associated with chronic inflammatory demyelination (CIDP), diabetes, other metabolic, toxic and vasculitic neuropathies. A proforma containing demographic, clinical, CSF findings and electrophysiological detail was designed which was filled by treating physician before requesting for

plasmapheresis. The data was analyzed using SPSS version 16 and significant was determined by using Pearson's chi square test.

RESULTS

A total of 185 patients were included in the study with 112(60.5%) males and 73(39.5%) females and M: F ratio of 1.53: 1. The mean age was 35.24 (SD 15.51) with range from 11-78 years. Ninety nine (53.5%) cases presented between 20- 40 years of age. The highest incidence of GBS (n=86, 46.5%) were seen in winter season (Dec - Feb), followed by 36 (19.5%) in spring (March - May), 46 (24.9%) in rainy summer (June - Sept) or southwest monsoon period and 17(9.2%) in post monsoon (Oct-Nov). This seasonal occurrence was significant (p=.000).

CONCLUSION

Our study showed that there is significant (p=.000) variation in frequency of GBS patients with a clear predilection towards winter season. GBS is more common in males than females in our local population with maximum frequency between 20- 40 years of age. Largest studies are required to confirm our findings and possible association with upper respiratory tract infections such as influenza which are common during this season so that preventive measures can be taken to prevent this illness.

GUILLAIN-BARRÉ SYNDROME: COMPLICATIONS OF DISEASE AND TREATMENT; A TERTIARY CARE EXPERIENCE

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INTRODUCTION/BACKGROUND

The cause of demise in Guillain-Barré syndrome (GBS) may be related to the sequelae of complications associated with the disease or its treatment.

AIM/OBJECTIVE

Unfortunately, very scarce local data regarding these complications is currently available whereas their timely recognition and prompt management is of paramount importance and we aimed to describe it.

METHODOLOGY

The study was carried out between Jan 2014 and Dec 2014 on one hundred patients of GBS aged \geq 12 years. Baseline characteristics and complications were recorded.

RESULTS

Most of the patients were quadriparetic and bed bound at presentation; i.e., Hughes 4 (n=68 out of 95 quadriparetic; total 68 of 98 with limb weakness). 18 (18%) of patients

had respiratory failure (type I/II) and 24 (24%) had dysautonomic features (mainly labile blood pressure and tachycardia) leading to death in one patient (fatality rate=1%). 7 (7%) of patients had treatment related complications. Major complication was in plasma exchange group and was that of catheter infections followed by hypoalbuminemia, RTIs, bed sores and UTIs. Mean duration of ICU stay was 18.80 ± 9.72 days. Respiratory tract infections were predominantly experienced by those expending some time in ICU setting ($p=0.00$) while having weak cough reflex. None had IVIG related complications. Likelihood of having complications was unrelated to age, gender, duration of illness or hospital stay ($p>0.05$).

CONCLUSION

Age, gender, duration of illness and hospital stay do not affect complication rates in GBS. Respiratory failure and dysautonomia are major disease related complications of GBS and one need to monitor vital capacity, blood pressure, heart rate and sinus arrhythmias on daily basis. Exchange lines and urinary catheters should be inspected at least once daily for infections and albumin promptly replaced post-exchange. Removing patients out of ICU settings earlier, once off ventilator and post-exchange, might prevent RTI related morbidity but the true impact of duration of ICU stay upon rate of complications needs to be determined via future studies.

RECIPROCITY OF SERUM CALCIUM AND MAGNESIUM ABNORMALITIES IN PATIENTS WITH STATUS EPILEPTICUS: DIAGNOSIS, PATHOGENESIS, PREVENTION AND TREATMENT

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INTRODUCTION/BACKGROUND

Electrolyte imbalances are considered an important cause of secondary epilepsy.

AIM/OBJECTIVE

To delineate the percentage of people with status epilepticus having calcium and magnesium deficiencies at admission.

METHODOLOGY

The study was carried out from April 2010 to October 2013 at Pakistan Institute of Medical Sciences (PIMS), Islamabad, Pakistan. Seventy patients diagnosed with status epilepticus were enrolled in the study and frequencies of serum calcium & magnesium abnormalities were measured and compared.

RESULTS

Calcium level was low in 29 (41.4%) patients. Magnesium

level was low only in 7 (10%) patients. Both calcium & magnesium levels were low in 7 (10%) patients. Among the known epileptics, 16 (76.1%) were on regular antiepileptic treatment. Among those on antiepileptic drugs, 8 (50%) had low calcium levels while 6 (37.5%) had low magnesium levels.

CONCLUSION

Serum calcium level was lower in nearly half while magnesium in nearly 2/5th of the previously diagnosed epileptics who presented in status. Among those on antiepileptic drugs, 50% had low calcium levels while 37.5% had low magnesium levels. It is suggested that all epileptic patients, especially those on long term AEDs, should at least be worked up once in detail for electrolyte abnormalities as timely identification and correction can help reduce the morbidity and mortality associated with future status epilepticus.

CASE PROFILE, REFERRAL PRACTICES, MEDICATION COMPLIANCE AND BURDEN OF ADMITTED STROKE PRESENTING AT PIMS

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INTRODUCTION/BACKGROUND

In Pakistan, there is lack of central as well as local stroke registry, poor referral system and therefore, scarce data describing demographics of stroke.

AIM/OBJECTIVE

We aimed to delineate the demographic profile, modifiable risk factors, compliance and referral practices in patients with stroke.

METHODOLOGY

This prospective, observational, descriptive study was carried out on 168 patients between June-December 2014 at PIMS.

RESULTS

Patients came to ER from 28 different districts, 35.1% (59) were from Islamabad followed by Rawalpindi 13.7% (23) and AJK 13.1% (22), and rest 38.09% (64/168), i-e-, 51.19% (86/168) from outside a 100 km radius with a mean delay from event to ER of 24.76 ± 6.78 hours. Most referrals were without any indication for need of tertiary care i-e-, 83.72% (72/86) for nursing care only. 38.09% (64/168) had cerebral ischemia, 4.76% (8/168) had brainstem infarcts, 2.4% (4/168) had brainstem bleed and 40.5% (68/168) had intracranial bleed. SAH was 13.69% (23/168) of total stroke burden and 33.82% (23/68) of bleeds. Important risk factors were hypertension alone

34.5% (58) and hypertension with diabetes 8.9% (15). Total burden of hypertension was 68.45% (115/168) and that of diabetes 18.45% (31/168). Of patients with hypertension and/or diabetes, noncompliance to medication was found in 94.78% (109/115) and 93.54% (29/31) while compliance in only 5.21% (6/115) and 6.45% (2/31) respectively. Those noncompliant to one or both medications were equally prone to have all types of strokes (ischemic/hemorrhagic) ($p < 0.05$) but no difference in areas/side of bleed or arterial distribution of ischemia ($p > 0.05$).

CONCLUSION

There is a need to review and create awareness at national level to prevent future strokes by emphasis on compliance with modifiable risk factor medication rather than expending on much expensive treatment strategies. Moreover, local health bodies should have a proper referral system confined to specific radius of a local tertiary care setup to prevent overburdening certain centers and thus prevent patient mismanagement.

QUALITY OF LIFE IN EPILEPSY: A SURVEY OF PAKISTANI ADOLESCENTS

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INTRODUCTION/BACKGROUND

Epilepsy is an ancient neurological disease and approximately 1% of the sufferers are adolescents. For young persons experiencing the burden of the disease in addition to the pressures of adolescence, the mere knowledge of their diagnosis is often a strong trigger for social and psychological problems. It can cause decreased self-esteem and social performance, leading to isolation and suicidal tendencies. While epilepsy and its psychosocial sequelae in adults and children have been documented in Pakistan, no study targeting adolescents with epilepsy exists. This survey was performed to assess quality of life (QOL) of a group of Pakistani adolescents with epilepsy. Results of this study will help improve psychosocial counselling and health management of these patients.

AIM/OBJECTIVE

To assess QOL of adolescents with epilepsy in Pakistan.

METHODOLOGY

This is an ongoing study. An analytic cross-sectional study was performed in young Pakistani adolescents with epilepsy registered in the Shifa Neurology OPD Database. The standardized Urdu version of Epilepsy Inventory for Adolescents 48 (QOLIE-AD-48) scale was administered by trained medical students for over the phone interview. SPSS 21 was used for data analysis and $p < 0.05$ was considered statistically significant.

RESULTS

A total of 35 patients took part in the study. The mean

age was 15.9 years. The mean total score of the scale was 60.0 ± 17.1 . The highest mean was in the school behavior domain (73.4 ± 27.7), while the lowest mean was in the domain of attitudes towards epilepsy (31.6 ± 17.1). There was a significant correlation between patient's view of control of epilepsy and quality of life.

CONCLUSION

This study reveals an unsatisfactory state of QOL in adolescents with epilepsy in our population compared to results from other countries.

PREVALENCE OF MIGRAINE AND TENSION TYPE HEADACHE IN MEDICAL STUDENTS

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Institutional Affiliation: Foundation University Medical College

INTRODUCTION/BACKGROUND

Headache is defined as a pain located above the orbitomeatal line. It is one of the most common complaints among medical students and it occurs due to numerous psychological and physical stresses, which are more common in medical students than general population. The current study was conducted as a medical survey at Foundation University Medical College.

AIM/OBJECTIVE

To find out the prevalence of migraine and tension type headache among medical students.

METHODOLOGY

This cross-sectional study was conducted in Foundation University Medical College, Islamabad, Pakistan from September 2014 to January 2015. Second- to Final-year medical students who have experienced some forms of headache in their life and had headache attacks during the past 6 months were included in this study.

Exclusion criteria were as follows:

(1) Students who completed less than half of the structured questionnaire. (2) having headache not classified according to the criteria of the International Headache Society (IHS); and (3) short-term headache. Informed consent from the participants and ethical approval of the ethics Committee of Foundation University Medical College was taken. The data was collected using a structured questionnaire. The statistical analysis was performed using SPSS version 20.1. The differences among groups were assessed using Chi-square and t-test. P value less than 0.05 were considered statistically significant.

RESULTS

Total 320 students met the inclusion criteria and out of these 139 were diagnosed with headache (43.4%). Headache was more prevalent among female students as

compared with males ($p=0.01$). The Tension type headache was more prevalent (22.8%) than Migraine (20.6%).

CONCLUSION

The results of this study suggest that prevalence of headache is high among medical students of Foundation University Medical College and TTH is its most common type. Both Migraine and TTH were found more among females. The year of study and residence might be significant factors in the prevalence of headache.

USE OF STIMULANTS BY MEDICAL STUDENTS; PREVALENCE, ATTITUDE AND MOTIVATION

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INTRODUCTION/BACKGROUND

Medical students are significantly more likely to use prescription stimulant medications to boost academic performance. Researches have been done in USA and Australia to inspect the prevalence of stimulant use by the medical students but very limited or no data is available regarding this aspect in Pakistan. It has been concluded that the use of stimulants among medical students is on the rise. Various aspects have been seen to affect this rise which has been considered in this research.

AIM/OBJECTIVE

Our objective was to observe the prevalence, attitude and motivation of non-medical use of prescriptive/non prescriptive stimulants among medical students.

METHODOLOGY

This was a cross sectional study conducted during the period of January-March 2015 at Medical Colleges of Islamabad. All data was entered and analyzed through SPSS version 19.

RESULTS

A total of 292 out of 400 participants returned the survey out of which 129 (44.18%) were users. Among the participants, 73 (38.6%) females and 56 (54.4%) males used Stimulants. The most common being used were energy drinks 107 (82.95%) followed by Methylphenidate (Ritalin) with 14 (10.85%) users. A 79 (61.3%) of them identified 'friends' as the most common influencing factor for stimulant use, followed by 28 (21.7%) being 'influence by seniors'. Majority of the users took it during Studying for exams 104(80.62%), normal routine 18 (13.95) and sports 7 (5.43%). The most common reasons for taking stimulants were staying awake 84(65.12%) and improvement in cognitive functions 27(20.93%). Stimulants users who experienced side effects were 24 (18.60%) of which main were palpitation 11 users (45.83%), addiction 7 (29.17%), increase thirst 3(12.5%) and anorexia 3 users (12.5%).

CONCLUSION

Energy drinks use is highly prevalent among medical students and the main reason for its use it is to decrease sleep hours and to improve cognitive functions. Major source of motivation are friends and seniors while majority of the time they are using them is in exams. We need more studies to address this rising concern and it should be dealt on a larger scale.

EFFECT OF LACK OF SLEEP ON THE ACADEMIC PROGRESS OF MEDICAL STUDENTS.

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INTRODUCTION/BACKGROUND

Sleep has been taken up as an issue of great medical interest in recent studies^{1,2} as students facing pressure due to academic demands may fall prey to sleep disturbances^{3,4} These could have an adverse effect on the cognitive abilities of students^{5,6,7} as seen in our college. Hence we have decided to assess the correlation between sleep and academic progress.

AIM/OBJECTIVE

To compare the relation between lack of sleep and the academic performance of students. Methodology: This cross-sectional study was a questionnaire-based survey conducted in Foundation University Medical College, in February 2015. The sample students were selected from 2nd year to 5th year. Confidentiality was assured and the process was carried out under the supervision of efficient mentors. The recruitment and collection of data continued for 2 weeks. The information was coded and analyzed on SPSS.

RESULTS

The study population consisted of 101 females and 39 males. Results show that during normal days, amongst the students getting 4-5 hours of sleep, 87.5% showed a good result. ($p=0.396$). During exams, amongst the students getting 2-3 hours of sleep, 53% scored grades ranging from good to excellent. (Where good=60-70%, excellent=70-80%) Out of the students getting more than 5 hours of sleep, 70% scored good and excellent grade, ($p=0.151$). The statistics also show that 72% of students considered sleep a necessity, out of which more than 60% gained good and excellent results. ($p=0.04$, significant). Conclusion: As per our findings, not a very significant correlation was established between the sleep patterns and academic performance of students in our institute. However, an average of 6-8 hours of sleep is advisable for a comparatively better performance. Further studies in this field are recommended.

EPILEPSY OR DEMONS?

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INTRODUCTION/BACKGROUND

Epilepsy has been associated with demonic powers during the course of its history, especially in the sub-continent. This study was designed to investigate if possession by demons (Jinns) is still considered to be a cause of epilepsy among educated Pakistanis today.

AIM/OBJECTIVE

To assess the knowledge, attitude and practice of epilepsy among educated individuals in Pakistan.

METHODOLOGY

512 participants aged 25-35 years comprising of 325 males and 187 females were selected as a randomized sample from Chakwal district. All of the participants had at least 12 years of formal education. The results are based on a structured questionnaire. Statistical analysis was performed using SPSS version 21.

RESULTS

All of the participants had heard about epilepsy and 367 (71.67%) had witnessed epileptic seizures. Majority of the participants reported that they had learned about epilepsy from friends and relatives. 188(36.7%) members considered epilepsy to be a psychiatric disorder. 265 (51.76%) of the participants in the study believed that epilepsy is caused by possession by Jinns, while 66 (12.8%) believed epilepsy to be a curse of God. Only 212 (41.40%) believed that epilepsy is curable. 259 (50.5%) thought that epilepsy is transmissible. 389(75.97%) considered Ruqya and traditional medicine to be their choice of treatment. 115(22.4%) thought that administration of a tbspc. of Honey during an epileptic attack can alleviate the symptoms.

CONCLUSION

Misconceptions about epilepsy still prevail in Pakistani society, and possession by demons (Jinns) is considered to be a major cause of epilepsy even amongst educated people. These findings accentuate the exigent need for promoting awareness about epilepsy through public education campaigns at all educational levels.

FREQUENCY OF VARIOUS CRANIOSPINAL ANOMALIES AND ITS MANAGEMENT IN RAWALPINDI

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INTRODUCTION/BACKGROUND

Neural tube defects (NTDs) are a group of complex congenital malformations of the brain and spinal cord that

arise due to failure of closure of neural tube during embryogenesis. Neural tube defects are found in about 1:1000 pregnancies in the US but in Pakistan the incidence found was higher that is 13.9 per 1000 births. There are various causes of Neural tube defects, the commonest causes include genetic susceptibility, deficiency of folate concentration, environmental factors, defect in metabolic path ways that play an important role in closure of neural tube during fetal development and even in utero drug exposure. The Treatment for Neural tube defects mainly includes either termination of pregnancy or in utero intervention. For postnatal cases, conservative or operative procedures are done. The Pattern and frequency of Craniospinal anomalies that presented in the Neurosurgery department, District Head Quarter Rawalpindi were evaluated by the authors and along with this the management of these anomalies was observed.

AIM/OBJECTIVE

To find out the frequency of various Craniospinal Anomalies and its management in Rawalpindi. Methodology: The records of all patients with congenital gross Craniospinal anomalies admitted in the Neurosurgery department of District Head Quarter Hospital (DHQ) Rawalpindi were analyzed over a period of 1 year. Data was analyzed by SPSS version 16. Patients with high Neural tube defects, cases associated with other gross anomalies and children below 15 days of age were deferred for operation. In Hydrocephalus patient's ventricular tap was performed and CSF was sent for R/E before inserting ventriculoperitoneal Shunt. Patients that were expected of having adequate quality of life and with amenable neural tube defects were operated after proper investigations.

RESULTS

A total number of 160 cases of Craniospinal anomalies were presented in Neurosurgery department of DHQ Hospital Rawalpindi. Majority of the cases were of males (57%). The most common anomaly observed was of Hydrocephalus (66.25%) and second most common anomaly was of Myelomeningocele (14.37%). There were 2 cases of Anencephaly that were managed conservatively because of their incompatibility with life. Majority of the cases of Hydrocephalus were operated on priority bases to restrict their head size. Whereas the cases of Hydrocephalus that presented in patients above 6 months of age and with enlarged 3rd ventricle were undergone 3rd Ventriculostomy while others were undergone shunting procedure.

CONCLUSION

Patients that present with high neural tube defects and have systemic congenital defects should be treated by

giving non-operative measures. Those patients presenting with amenable neural tube defect and that are expected to have adequate quality of life should be given proper surgical treatment along with proper counseling. In our country there is lack of public awareness of folic acid supplementation in the antenatal period. Strategies should be adopted to educate the health professionals and public regarding the importance of Folic acid supplementation and how it prevents from Neural tube defects

A COMPARATIVE INVESTIGATION TO OBSERVE THE EFFECT OF THE RECITATION OF AL-QURAN AND CLASSICAL MUSIC ON ALPHA BRAIN WAVES IN MEDICAL STUDENTS

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INTRODUCTION/BACKGROUND

Experiments have shown that soft music has been found to be highly effective in increasing relaxation, decreasing stress, treating mental disorders and curing depression. However, many Muslim countries, including Pakistan, will claim they know of another extremely potent relaxant- The Quran. The Quran itself states "Verily, in the remembrance of Allah, do hearts find peace [13:28] ". Many books and online forums boast the relaxing abilities of Quran. We set forth to find out whether these claims have any scientific basis, and if so, if they are comparable to Classical music already proven to reduce stress and increase relaxation. Although similar researches have been conducted in Malaysia and Egypt, this has not been explored in Pakistan. The studies have also not shown any comparison between males and females, and did not provide any information about the reciters. We conducted a pilot study with 16 participants in March 2014. This study is a continuation of our previous experiment.

AIM/OBJECTIVE

To determine the role of Quranic recitation in producing alpha wave increments on an EEG in healthy subjects. To compare the level of increments, if any, in alpha waves on an EEG between Quranic verses and Classical music.

METHODOLOGY

32 healthy volunteers aged 20-25 years, comprising of 16 males and 16 females were selected, from the undergraduate MBBS program of FUMC. A 10 minute baseline EEG was recorded for each of the participants prior to the procedure at FFH, to rule out any neuropsychiatric disorders. After adjusting the electrodes properly, a 5

minute baseline EEG was recorded . The participant was then exposed to the recitation of chapter 36 (Surah Yaseen) of Al-Quran for 5 minutes, via earphones. A period of EEG at rest was recorded for 5 minutes after exposure to Quranic recitation. Subsequently, the subject was exposed to Pachelbel's Canon in D major, which has been used as "relaxing music" in other established researches. Statistical analysis was performed using SPSS version 21. Paired sample t-test was used to determine the significance of difference in increments.

RESULTS

Mean values of Maximum negative alpha amplitude for Quranic Recitation, Baseline and Classical music were -39.9 μ V, -36.5 μ V, -35.8 μ V respectively. Maximum negative alpha amplitude was higher for Quranic recitation vs. Baseline ($p=0.006$) and Quranic recitation vs. Classical music ($p = 0.001$).

CONCLUSION

The results reveal that Quranic recitation increments alpha brain waves more than classical music, which has been scientifically established to cause mental relaxation. Therefore, Quranic recitation can help to achieve a more relaxed state of mind, and may be used as potent tool in music therapy as a part of CAM (complementary and alternative medicine)

ASSOCIATION OF SLEEP QUALITY AND DAYTIME SLEEPINESS WITH MOBILE PHONE USAGE AFTER LIGHTS OUT AMONG MEDICAL STUDENTS; A CROSS-SECTIONAL STUDY FROM PAKISTAN

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INTRODUCTION/BACKGROUND

While mobile phones are lauded for facilitating work and entertainment, they are also blamed for disturbing quality rest time. Youngsters, in particular may find themselves indulging in compulsive mobile phone use that can extend late into sleep hours hence delaying bedtime and even interrupting sleep. This, coupled with early college time, incurs sleep debt that manifests as day time drowsiness and waning productivity. The recent boom in personal mobile phone ownership threatens to worsen these problems. Existing studies in Pakistan have surveyed phone usage and sleep patterns of students independently but this survey aims to determine the association between them. Public health strategies can then be devised to help students maintain sleep hygiene and make mobile phone use less damaging.

AIM/OBJECTIVE

To determine the association of sleep quality and day time sleepiness with mobile phone usage after lights out among students of Shifa College of Medicine, Islamabad.

METHODOLOGY

An online cross-sectional survey using Google forms was circulated among the students of Shifa College of Medicine. The form had three components; Pittsburgh Sleep Quality Index (PSQI) for assessing sleep quality, Epworth Sleepiness Scale (ESS) for assessing daytime sleepiness and a questionnaire assessing mobile phone usage after lights out. Scores for each instrument were calculated and Spearman's correlation was applied using SPSS v.21.

RESULTS

Response rate was 45% (225 out of 500) out of which 219 responses were subjected to analysis. There was a strong positive correlation between mobile phone use after lights out and sleep quality ($r = 0.225, p = 0.001$) and also between mobile phone use after lights out and daytime sleepiness ($r = 0.212, p = 0.002$). A p value of less than 0.05 was considered significant.

CONCLUSION

Using mobile phone after lights out resulted in declining sleep quality and worsening daytime sleepiness among medical students. They should be encouraged to adopt healthy mobile phone usage patterns to improve their sleep and consequently, their productivity. However further prospective multicentric studies are needed to supplement the results.

AWARENESS OF STROKE SYMPTOMS, RISK FACTORS, AND PREVENTION IN RAWALPINDI: A PILOT STUDY

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INTRODUCTION/BACKGROUND

Stroke is a deadly disease that claims up to six million lives a year, but is not given due importance. Studies often cite lack of comparative data as one of the main reasons that stroke is not readily dealt with on a global scale. Updated data on stroke awareness is needed, as there are a lack of studies being done in Pakistan.

AIM/OBJECTIVE

To evaluate how well individuals can identify stroke, symptoms, risk factors, and the immediate step needed for treatment.

METHODOLOGY

Convenience sampling was done in the OPD of Fauji

Foundation Hospital. A self-designed questionnaire was used to survey the subjects. Data was then analyzed using SPSS Version 21.

RESULTS

A total of 230 individuals were included in the study. Of them, 79.6% of people had heard of the word stroke before. Only 33.9% of people identified the brain as being the primary organ involved in stroke. The two most commonly identified symptoms were trouble speaking (70.9%), and dizziness (72.2%). The two most commonly identified risk factors were hypertension (71.3%) and irregular heartbeat (63.9%). Regarding what actions to take if stroke were to occur, 60.4% of subjects said to bring the affected individual to the hospital.

CONCLUSION

Awareness of the symptoms, risk factors, and immediate step towards treatment was overall inadequate among the sample surveyed. Further studies should be done using a larger sample size and more extensive questions in order to elaborate on this research.

NEED AND SCOPE OF TELEREHABILITATION SERVICES IN PAKISTAN

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INTRODUCTION/BACKGROUND

Rehabilitation Services especially for the Physical Disable allows them to restore their normal life and to play their roles in development of community and their country. Use of Tele-Medicine for provision of rehabilitation services at community level is very in. This use of ICT brought a revolution in delivery of an efficient & cost effective rehabilitation services for the patients at Door Steps. Currently in Pakistan Physically Disabled community is much more than the WHO described ratio due to war against terror and high trauma rate while there are very limited Rehabilitation Centers & Professionals available in the country. This study is aimed to assess the need and scope of Tele-Rehabilitation Services in Pakistan according to the Different Rehabilitation Professionals working in field.

AIM/OBJECTIVE

The main objective of this study was to assess the need & scope of telerehabilitation services in Pakistan.

METHODOLOGY:

Mixed Methodology (both Qualitative & Quantitative) questionnaire filled out by different Rehabilitation Professionals working both in Public & Private Sectors in Pakistan.

RESULTS

About 7% graded existing Rehabilitation Services

System in Pakistan as very poor while more than 30% graded it good one whereas only 1-10 Government Institutes are providing Rehabilitation Services across the country. More than 20% graded existing number of Rehabilitation Centers as "Somewhat Satisfactory". Most of the participants were having good Computer Knowledge with significant knowledge about Telemedicine and Telerehabilitation. Most of the participant using different communication tools on daily basis but a very few of them are using those tools for patient consultation and prescription. Almost 50% participant said that Telerehabilitation programs will be very useful in provision of Rehabilitation Services in Pakistan with maximum social acceptance and will reduce the disables big city visits. High cost of Technology & Lack of ICT knowledge may be limiting factor in Telerehabilitation Services. Data miss use, privacy and other risk factors are associated with Telerehabilitation Services and patient may have some limitation in developing good doctor, patient relationship. 40% participant suggest that only Consultation may be provided through Telerehabilitation Services while about 50% said that multiple type of services may be provided.

CONCLUSION

In this study it is concluded that Telerehabilitation Services will be very useful and socially acceptable in Pakistan and will help to reduce per patient cost. Rehabilitation Professionals in Pakistan have good understanding of Telerehabilitation Services and according to them Telerehabilitation programs are need of time and will help them to reduce the burden on Teaching Hospitals for Rehabilitation Services.

VERTEBRAL ARTERY DISSECTION: INTELLIGENTLY USING CT ANGIOGRAPHY WITH VASCULAR RECONSTRUCTION IMAGING FOR TIMELY DIAGNOSIS AND MANAGEMENT

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INTRODUCTION/BACKGROUND

Vertebral artery dissection (VAD) is an important cause of stroke in the young. It can present with nonspecific symptoms and may be misdiagnosed with adverse consequences. Since VAD is a potentially treatable disease and the greatest risk of stroke in craniocervical dissection appears to occur in the first few weeks after dissection, prompt diagnosis is essential.

AIM/OBJECTIVE

The literature describing VAD is varying in quality and

content, and many studies report only a few patients' series. The objective of this report is to review VAD diagnostic strategies and treatment protocols.

METHODOLOGY

We describe a case of VAD; explaining emergency diagnostic strategies and management.

RESULTS

A 32 years old lady presented to us giving history that while having neck massage, she instantaneously developed vomiting with head and neck pain, dysphagia, vertigo and difficulty walking. She was found to be ataxic with crossed hemisensory loss to pinprick and ipsilateral Horner's syndrome. We performed her emergency CT brain and CTA and found signs suggestive of VAD including double lumen sign, absence of flow, attenuated arterial signal and associated territorial ischemia within minutes of ER arrival. Literature review showed that while conventional angiography is the gold standard, CTA has good sensitivity of diagnosing VAD. Specific scenarios associated with VAD include neck massage/ chiropractic exercises, sport injuries, hypothyroidism, use of oral contraceptive pills and pregnancy. Therefore, one should suspect VAD under such circumstances and intelligently order imaging modalities. We also explained that routine treatment of VAD is almost always conservative with little role of neurosurgical intervention. Conclusion: If used intelligently, CTA is a relatively easily accessible, convenient, fast and cheap yet reliable means of reaching the diagnosis of VAD. Future studies should compare imaging techniques in well-defined, undifferentiated populations of clinical VAD suspects (e.g., emergency department patients with dizziness or vertigo in association with head or neck pain) and imaging protocols should be standardized.

DIASEMATOMYELIA WITH SYRINGOMYELIA AND TETHERED CORD IN A PATIENT WITH CONGENITAL SCOLIOSIS

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INTRODUCTION/BACKGROUND

Diastematomyelia is a form of congenital dysraphism in which the spinal cord is split into two longitudinal halves by a fibrous band or a bony spur. It is commonly associated with scoliosis and segmentation anomalies of vertebral bodies such as butterfly vertebra, hemi vertebra and block vertebra. Very rarely, it is associated with tethered cord, hydromyelia, syringomyelia, dermoids and Arnold Chiari malformations.

AIM/OBJECTIVE

No treatment is required until the patient is symptomatic.

However earlier treatment in symptomatic children favors a better prognosis.

METHODOLOGY

We report an 11 year old female patient presenting to medical OPD with complaints of skin dimpling over sacral region and weakness of right upper limb. However patient was able to perform day to day activities with right upper limb and no other associated neurological deficit was identified.

RESULTS

On examination there was obvious drooping of right shoulder with power= 4/5 in right upper limb. A dimple was noted in the lower back in midline with a spur noted in natal cleft. Patient was referred to neurology where x-ray lumbosacral spine was advised. Multiple segmentation anomalies of lumbar and cervical vertebrae were noted with scoliosis towards the right and associated rib anomalies. MR Lumbosacral spine was suggested for further workup which was consistent with x-ray findings. In addition spinal cord was seen extending below the level of LV2 vertebra with syrinx at level CV5-CV7 and DV3-DV6. Spinal cord was split into two longitudinal halves by bony spur from upper lumbar uptill 2nd sacral vertebra consistent with diastematomyelia. A further referral to neurosurgery was made and patient was scheduled for decompression surgeries and removal of bony spur.

CONCLUSION

The surgeries was performed successfully and power of right upper limb is currently the same as contralateral side, however mild shoulder drooping is still present. In postoperative MRI scans, syringomyelia remained unchanged. However there was no skin infection, motor deterioration, or sensory deficit after surgery and patient is doing well on surgical follow up.

GUILLAIN-BARRÉ SYNDROME AFTER ACUTE HEPATITIS A INFECTION

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INTRODUCTION/BACKGROUND

Guillain-Barré syndrome (GBS) is a neurological emergency that warrants prompt diagnosis and treatment. Occasionally, the clinical, laboratory and electrophysiological features are neither typical nor diagnostic. It requires a high index of suspicion and clinical judgement for early diagnosis and commencement of treatment in those scenarios. Some pathogens are potential triggers of this serious neuro-

logical disease, including: *Campylobacter jejuni*, *Mycoplasma pneumoniae* and cytomegalovirus. Although uncommon, hepatotropic viruses (hepatitis A, B, C and E) are increasingly recognized to be triggering microbes.

AIM/OBJECTIVE

The objective of this report is to highlight the association of hepatotropic viruses with Guillain-Barrésyndrome.

METHODOLOGY

We describe a rare case of GBS following acute hepatitis.

RESULTS

A 24 years old lady presented to us with GBS triggered by an a typical microbe, i-e-, hepatitis A virus leading to severe demyelinating type peripheral neuropathy. The patient initially developed symptoms of hepatitis followed a week afterwards by rapidly progressive ascending flaccid quadriplegia with facial diplegia. During this period, she had her hepatitis A IgM recorded twice as positive. She underwent 5 sessions of plasma exchange (250ml/kg) with good clinical response and uneventful recovery over a period of 6 months with no sequelae.

CONCLUSION

While GBS has been linked to a number of viral etiologies, association between hepatotropic viruses and GBS is a rare but none the less important entity. Physicians should therefore carefully examine their patients with limb weakness in recovery phase of hepatitis particularly for signs of peripheral neuropathy to timely recognize and treat a potentially recoverable but dreadfully disabling disease.

PATTERN OF SPASTICITY AFTER TRAUMATIC SPINAL CORD INJURY

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INTRODUCTION/BACKGROUND

Spasticity is a common complication after spinal cord injury. Effects of spasticity are delayed healing of pressure ulcers, difficulty in urine and bowel management, difficulty in ambulation, spasticity throwing patient out of bed or wheelchair, risk of injuries, pain and sleep disturbances. Spasticity control should be included as a prerequisite for any treatment protocol of spinal cord injury patients.

AIM/OBJECTIVE

To determine frequency of spasticity in spinal cord injury

patient with reference to its severity, type and level of spinal cord injury and different complications.

METHODOLOGY

It was a cross sectional study conducted at Armed Forces Institute of Rehabilitation Medicine Rawalpindi for 6 months. Non probability sampling technique was used. All patients with traumatic spinal cord injury for more than 6 months duration and both genders were included in the study. Informed consent was taken from all patients. American spinal cord injury classification (ASIA classification) was used to determine level of spinal cord injury and to classify spinal cord injuries. Modified Ashworth scale was used to measure and grade spasticity. SPSS v 17 was used to analyze data.

RESULTS

Total 70 patients were included in study. Mean age of presentation was 31 yrs with SD ± 1.39 (Figure 1). Males were 77.1% (54) and females were 22.9% (16). Thoracic level of injury was in 50% (35) patients followed by lumbar level 22.9% (16), cervical level in 12.9% (9) and Cauda equine lesion in 14.28% (10) patients. Injury was complete in 80% (56) patients. Most common cause of injury was RTA 24 (34.3%) followed by fall 21 (30%) and GSW in 7(10%) of patients (Graph 1). Spasticity was present in 38.6% of patient. Mostly patients had spasticity in grade 1+ 14.3% (10) and grade 2 10% (7). There is no association of spasticity with gender with odds ratio of 1.1. Spasticity has strong association with cervical level injuries with odds ratio of 9.8.

CONCLUSION

We concluded in this study that spasticity is a frequent complication after SCI. spasticity is more frequent in cervical injuries and incomplete injuries.

MS WITH MS: UNPRECEDENTED ASSOCIATION OF TWO WELL-KNOWN ORGAN SYSTEM DISEASES

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INTRODUCTION/BACKGROUND

Multiple sclerosis is the most common autoimmune inflammatory demyelinating disease of the central nervous system. It is characterized pathologically by multifocal areas of demyelination with loss of oligodendrocytes and astroglial scarring. Mitral stenosis is a valvular heart disease characterized by the narrowing of the orifice of the mitral valve mostly caused secondary to rheumatic heart disease. It can lead to dilated left atrium with atrial fibrillation culminating into thrombus

formation. It, per se, or via mural thrombus can be a source of cardioembolic stroke by shedding shower of emboli into CNS.

AIM/OBJECTIVE

While patients with mitral stenosis presenting with stroke like features are most likely to have embolic phenomenon, it is highly unlikely and yet unprecedented and undocumented, to have association between mitral stenosis and multiple sclerosis and the purpose of this report is to highlight this possible association.

METHODOLOGY

We describe the case of a patient with mitral stenosis and multiple sclerosis.

RESULTS

A 28 years old gentleman known to have severe mitral valve disease and non-compliant to treatment presented to us with history of multiple stroke like episodes over a course of 18 months without visual impairment. He was found to have classical radiological manifestations and CSF supportive findings suggestive of multiple sclerosis including periventricular, juxtacortical, infratentorial and spinal cord lesions with oligoclonal bands.

CONCLUSION

While association between mitral stenosis and connective tissue disorders has been described, none has reported association of cardiac MS and CNS MS and we are the first ones to describe this interesting and rare entity.

POST-TRAUMATIC STRESS DISORDER IN PATIENTS WITH TRAUMATIC SPINAL CORD INJURIES

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INTRODUCTION/BACKGROUND

Post-traumatic stress disorder (PTSD) is a psychiatric disorder that may develop after exposure to a traumatic event. Patients of traumatic spinal cord injuries are at risk of developing PTSD, and diagnosing this disorder and recognizing risk factors is important for effective treatment.

AIM/OBJECTIVE

To determine the prevalence of PTSD in post-traumatic spinal cord injury patients and correlate the presence of PTSD to factors such as age, cause of injury, and level of injury.

METHODOLOGY

A descriptive cross sectional study was conducted at

Paraplegic Center in Peshawar, Pakistan. The Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) was used to assess the presence of post-traumatic stress disorder in patients at the Paraplegic Center. The study was carried out from December 2014 to February 2015 on a convenience sample of 51 patients. The criterion for inclusion in the study was to have a traumatic spinal cord injury, while the exclusion criterion was to have a spinal cord injury that was non-traumatic in nature.

RESULTS

Out of 51 patients, 31% met the diagnostic criteria for PTSD. The age group of 15-24 years had a 27% prevalence of PTSD, while the age groups of 25-34 years and 35-44 years had a PTSD prevalence of 42% and 40% respectively. Patients who had fallen from a height had the highest prevalence of PTSD – 41%, as compared to patients who had other causes of traumatic spinal cord injury. Patients with a lumbar spinal lesion had a PTSD prevalence of 44%, whereas patients with a cervical and thoracic spinal lesion had a PTSD prevalence of 33% and 25% respectively.

CONCLUSION

The study shows that lower age groups had a lower prevalence of PTSD, and patients who had fallen from a height had the highest prevalence of PTSD. Lumbar spinal lesion patients had a higher prevalence of PTSD than patients who had spinal lesions at the cervical or thoracic level.

FUNCTIONAL OUTCOME OF STROKE PATIENTS TREATED AT ACUTE INPATIENT STROKE REHABILITATION UNIT; A RETROSPECTIVE CHART ANALYSIS FROM SHIFA INTERNATIONAL HOSPITAL ISLAMABAD.

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INTRODUCTION/BACKGROUND

Stroke is the third leading cause of death and is associated with major disability that can lead to change in person's role in society, relationship, personality, mood and communication. The role of dedicated stroke rehabilitation is vital to the full recovery of the patient. Shifa International Hospital recently established the first multidisciplinary inpatient stroke rehabilitation center in the country. 64 patients were admitted from September 2014 to February 2015 and we assessed the functional outcome in response to rehabilitation.

AIM/OBJECTIVE

To measure functional outcome of stroke patients admitted to a newly established inpatient stroke rehabilitation unit.

METHODOLOGY

A retrospective chart analysis of stroke patients was done who were rehabilitated at the newly established Stroke Rehabilitation Centre in Islamabad. After taking an informed consent, patients were assessed for various rehabilitation parameters using Barthel ADL index, Berg balance and FIM scores on both admission and discharge. Data was analyzed using SPSS 21.

RESULTS

A total of 64 patients were enrolled in the study, admitted during September 2014 to February 2015. Mean age was 63.64 years. A 73.5% had prior ischemic stroke while 26.5% of patients had hemorrhagic stroke. The average length of hospital stay was 7.53 days. The mean Barthel index, Berg balance and FIM score on admission was 28.05, 8.25, 48.45 and on discharge was 51.09, 15.83, 79.69 respectively and the difference was found to be statistically significant.

CONCLUSION

All patients achieved good functional recovery to a high level of satisfaction. Acute aggressive rehabilitation in a multidisciplinary unit leads to a better and improved outcome in stroke patients.

MULTIPLE CRANIAL NEUROPATHIES IN VZV INFECTION.

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INTRODUCTION/BACKGROUND

Shingles refers to the local VZV infection resulting from reactivation of dormant virus commonly after lapses in immunity of the individual. It affects various dermatomes and myotomes, most commonly the thoracic and lumbar but also rarely the cervical region. Cranial nerves commonly affected are trigeminal and facial nerve referred as Ramsay hunt syndrome. Other cranial nerve involvement is rare. We are reporting a pt. with multiple cranial nerve involvement including trochlear, facial nerve as Ramsay hunt syndrome and vestibulocochlear. She responded to the treatment with antivirals and recovered completely.

CASE SUMMARY

A 24 years old lady who had no previous co-morbid or any history of immunosuppressive illness like HIV or diabetes and was not taking any medication that can cause immunosuppression, presented with 5 days

history of vertigo followed by post-auricular pain on the left side and vesicular rash involving the left ear, weakness of the left side of the face and double vision most prominent on looking down ward and medially. On examination she had normal higher mental functions and speech, normal vision and fundi, pupils were bilaterally equal and reactive. She had right superior oblique palsy rest of the ocular movements were normal. She had vesicular rash involving the left ear with inability to close left eye, flattening of nasolabial fold and drooping of angle of face on the left, had normal hearing, tongue and pharyngeal movements. Rest of the neurological examination including sensory, motor, cerebellar examination was normal. CSF examination showed mild lymphocytic pleocytosis and mildly raised proteins. MRI brain was normal. She was treated with acyclovir orally and her symptoms improved in a week.

CONCLUSION

Herpes zoster virus infection should be suspected in patients presenting with multiple cranial neuropathies especially in immunocompromised patients.

A YOUNG LADY WITH LUPUS NEPHRITIS AND GENERALIZED WEAKNESS

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INTRODUCTION/BACKGROUND

Chronic inflammatory demyelinating polyradiculoneuropathy (CIDP) is an acquired, autoimmune peripheral neuropathy. It has an insidious disease progression resulting in a debilitating illness. It is a well-known neurological disorder. The causative factors are elucidating and it is generally considered idiopathic. However, its associations with various systemic disorders is well established albeit under recognized, especially with lupus as evident by few of the case reports/ series published in the recent past.

AIM/OBJECTIVE

The objective of this report is to highlight and recognize the association of CIDP with SLE in an otherwise labeled patient of lupus with systemic symptoms.

METHODOLOGY

We describe a case of a 17 years old girl; her course of ailment and management.

RESULTS

A 17 years old girl presented to us with numbness and progressive weakness of both the arms and legs for the

last 6 months and pedal edema for the last 2 months and workup revealing positive ANA and anti-dsDNA. She was confirmed as a case of SLE with lupus nephritis and treated accordingly. Unfortunately, her motor weakness was solely attributed previously to her systemic illness until we worked her up and found her to be a case of CIDP.

CONCLUSION

General weakness due to multisystem involvement in SLE as a part of chronic ailment is often blamed to be the cause behind motor weakness whereas the real problem lies undiagnosed. This is said so because it is a potentially treatable disability that can greatly affect the quality of life and indirectly increase mortality via complications. Such cases can pose great difficulty in diagnosis at times, and whenever in doubt, physicians should have a low threshold for timely referring such patients to specialist care.

CENTRAL PNET WITH FEATURES OF EPENDYMOBLASTOMA AND NEUROBLASTOMA - A CASE REPORT

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INTRODUCTION/BACKGROUND

Primitive neuroectodermal tumors (PNETs) are morphologically similar malignant tumors, showing varying degrees of cellular differentiation. These are small cell, malignant embryonal tumors showing a spectrum of histologic appearances ranging from completely undifferentiated tumors to those showing focal or diffuse areas of neuronal and/or glial differentiation. PNET is a broad term that includes a wide range of lesions with varying differentiating potential affecting both the central and peripheral nervous system. PNET of the CNS can be divided grossly into infratentorial tumors (medulloblastoma or iPNET) and supratentorial tumors (sPNET) with a tendency to disseminate along cerebrospinal fluid pathways. They occur primarily in children and young adults. From a practical, histologic point of view, these tumors are often indistinguishable from one another and are best thought of as primitive neuroectodermal tumors with or without differentiating features. Medulloblastoma represents the most common type of primary solid malignant brain tumor in children (as many as 30% of all solid brain tumors). Isolated PNET is sporadic in nature, and only 14 familial cases have been reported in the literature. The observed symptoms are due to the neuroanatomical location of the tumor or are a consequence of increased intracranial pressure. They include

Irritability, lethargy, intermittent vomiting, headache (usually worse in the morning), visual blurring/change, nausea and an imbalance. Ongoing worldwide research has explored nonconventional therapeutic strategies such as immunotherapy and gene therapy to improve outcome and survival.

CASE PRESENTATION

We present a case of 5yr old female who presented with headache, off and on vomiting and fits for 03 months. Her past history was not significant. CT scan brain showed a midline frontal space occupying lesion for which she was operated upon and gross total resection of the lesion was done and sample sent for histopathology. The tumor showed typical combined histological patterns of ependyoblastoma and neuroblastoma, demonstrating zones of true rosettes, occasional pseudo-vascular rosettes, and undifferentiated neuroepithelial cells in a prominent background of mature neuropil. Calcification with areas of necrosis were also seen. There was focal expression of glial fibrillary acidic protein (GFAP) consistent with glial differentiation and epithelial membrane antigen (EMA) consistent with ependymal differentiation. The tumor cells were also positive for synaptophysin in neuropils.

CONCLUSION

CNS PNETs with the features of ependyoblastoma and neuroblastoma is a rare tumor with poor prognosis. The tumor primarily occurs in childhood, especially infant and belongs to the family of embryonal tumors of the CNS. Current treatment modalities include a combination of surgery, chemotherapy, and/or radiation. The morphologic, immunohistochemical and genetic features are important in differential diagnosis from other tumors of the CNS.

FRONTO-TEMPORAL DEMENTIA WITH MOTOR NEURON DISEASE: A CASE STUDY

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INTRODUCTION/BACKGROUND

Fronto-temporal Dementia is a Neuropathological disorder, associated with characteristic atrophic changes in the frontal and temporal region, with insidious deterioration in personality, behavioral and social skills. The rarity of the disorder invokes confusion, and overlapping behavioral symptoms can mask the real psycho-pathology.

AIM/OBJECTIVE

To examine the diagnostic clarification of the earlier

onset frontotemporal dementia and its subtypes in a patient with psychotic symptoms.

METHODOLOGY

Ms.E was diagnosed with depression when she was 35 years old, her early symptoms were isolation and poor interest. She left medicines after a while and presented to emergency room with psychotic symptoms. While being admitted she developed disorientation and motor immobility with spasticity. Her baseline tests as well as MRI was done. MRI changes were indicative of frontal and temporal atrophy. Results: Ms.E was diagnosed as having fronto-temporal dementia with motor neuron disease (FTD-MND). maging studies showed fronto-temporal atrophy and clinical assessment of motor dysfunction concluded diagnosis. However, EMG was requested but test was never complied. Patent has poor prognosis for recovery and rehabilitation is available possibility for preventing swift progression of an illness.

CONCLUSION

FTD-MND is a rare condition with poor prognosis. Motor symptoms with cognitive disturbances should provide a clue. Rehabilitation measures can slow down progression of illness in long run.
