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## 10th annual neurology research day, may 2016 abstracts shifa international hospital, islamabad

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# 10TH ANNUAL NEUROLOGY RESEARCH DAY, MAY 2016 ABSTRACTS SHIFA INTERNATIONAL HOSPITAL, ISLAMABAD

## HEADACHE ATTRIBUTED PROBLEMS IN PUPILS OF AGES 11-18 YEARS.

Rohaam Noor, Komal Gilani, Umer Farooq, Sabul Zafar, Fatima Aurangzaib.

*Foundation University Medical College, Islamabad.*

**Background:** Burden of headache has been assessed in adults in countries worldwide, and is high, but data for children and adolescents is sparse. The objective of this study is to fill the information gap for adolescents.

**Aim/Objective:** To evaluate the headache attributed problems in pupils of ages 11-18 years.

**Methodology:** Consenting adolescents of the ages 11-18 years from a local school in Islamabad, Pakistan, took part in the study. Screening of the participants was dependent on the fact if upon questioning they complained of having experienced a headache, ever, in any stage of life. A structured questionnaire that assessed various aspects of burden of headache was then distributed to the screened individuals.

**Results:** Data were collected from 286 pupils (174 female, 112 male) of ages 11-18 years (mean=14.39). 40.9% students had headaches for less than one hour while others had for more than an hour. 29.9% reported it as "not bad" 57.7% as "quite bad" 12.5% as "very bad". 28.5% said it is usually "on one side", 23.5% "in the middle" and 48.0% "on both sides". 64.1% described it as "throbbing" and 35.9% as "pressing". 49.5% said that exercise made it worse and 57.3% avoid exercise. 49.6% usually felt sick with a headache while only 20.4% actually got sick. 55.2% preferred darkness. 92.5% preferred to be in the quiet. 6.8% "never", 37.9% "sometimes", 26.8% "often" while 28.6% "always" had trouble concentrating. 46.1% "never", 36.4% "sometimes", 11.4% "often" and 6.1% "always" had parents stop them from doing things with a headache. 24.9% "never", 39.4% "sometimes", 18.4% "often" and 17.3% "always" were unable to cope with headaches.

**Conclusion:** Headache attributes to restriction, disability, social handicap & impairment in participation of pupils of ages 11-18 years

## SLEEP DISTURBANCE IN CANCER PATIENTS UNDERGOING CHEMOTHERAPY, RADIOTHERAPY OR BOTH

Muhammad Awais Dawood, Anum Shah, Nosheen Tariq, Mehr Jamil

*Foundation University Medical College, Islamabad*

**Objective:** To identify patterns of sleep disturbances and their possible causes in cancer patients admitted in Fauji Foundation Hospital (FFH) and CMH Oncology Ward.

**Methodology:** After the ethical approval, this cross-sectional study was conducted in a period of 1 month. A total of 40 cancer diagnosed patients receiving chemotherapy, radiotherapy or both were included. A self-administered modified internationally accepted sleep survey questionnaire (Pittsburgh Sleep Quality Index, PSQI) was used. It has 15 items focusing on sleep pattern and its duration. Closed ended questions regarding possible contributing factors and effects of sleep disturbance in these patients were inquired. Responses were of dichotomous variables (yes or no). Questions with more than two options were rated by the PSQI scoring method.

**Results:** Response rate was 95% and final sample size was 33. Insomnia (85%), was recorded, trouble falling asleep (55%), waking up at night several times (30%), staying up at night for a long time after falling asleep (9%) and others (6%). Hyper somnolence was also observed. Possible causes of sleep disturbances as perceived by the patients were found to be excessive fatigue (82%), treatment (79%) and concern of having "cancer". In addition, only 9/33 cancer patients were counseled by the doctors regarding possible sleep disturbances.

**Conclusion:** Results of this study suggests high frequency of various sleep disturbances in cancer patients due to disease itself or concern of having it. Management with appropriate counseling of these patients may lessen the distresses 11-18 years

## ATTENTION SPAN, PROCESSING SPEED AND WORKING MEMORY IN VIDEOGAME ADDICTED MEDICAL UNDERGRADUATES

Hamna Shah, Hadia Asif, Faiza Ayyub, Zohak Sarfraz, Saad Mahmood, Riyan Fakhri

**Background:** Video game usage amongst adolescents has increased dramatically in recent years owing to its rising popularity. The increased prevalence of addiction to computer games is a cause of major concern. However since videogames have the capacity to engage one in learning experiences, this has led to the rise of “edutainment” media, an increasingly preferred learning modality in today’s generation. The rapid mind and body coordination needed in video gaming has been proposed to enhance certain domains of cognitive functions. Since medical undergraduates undergo one of the most rigorous and tedious courses, a fresh tool for the enhancement of their cognitive functions may prove beneficial to their learning aptitude .

**Aim/Objective:** The purpose of this research is to highlight the influence of video game addiction on a medical undergraduate's attention span, processing speed and working memory.

**Methodology:** A total of 50 medical undergraduates between the ages of 19-23 studying in CMH LMC were randomly selected from all years of MBBS and BDS. Using the core criteria on Gaming Addiction Scale (GAS), 15 male students turned out to be addicts and 15 more were included in the control group. Attention span was tested using the Schulte table, processing speed by the Digit Symbol Substitution Test (DSST) and working memory by the Digit Span Test (DST). All three of the tests were performed on both groups and the results were analyzed using SPSS v23.

**Results:** The video game addicts had significantly better attention span, processing speed and working memory when compared to controls ( $p < 0.05$ )

**Conclusion:** The video game addicts showed an improvement in above mentioned cognitive domains which can be beneficial for them to process and retain information as compared to their peers and can aid in coping with the high pressure studies ahead. Recommendations: Appropriate and judicious use of videogames as an educational tool for medical undergraduates.

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## FREQUENCY OF COGNITIVE IMPAIRMENT AMONG TYPE 2 DIABETICS WITH CONTROLLED VERSUS UNCONTROLLED BLOOD GLUCOSE LEVELS

Jamshaid, Dr Nadeia Younes, Dr Tahir Iqbal, Prof. Arsalan Ahmed, Dr Osama Ishtiaq  
*Shifa International Hospital*

**Introduction:** Diabetes Mellitus, one of the leading

causes of morbidity and mortality is associated with high rates of hospitalization, blindness, renal failure and non-traumatic amputation. Estimated prevalence of diabetes in adults worldwide was 4.0% in 1995 and ranges from 7.6 to 11% in Pakistan, according to a survey done in 2010. Studies have shown that there is a direct link between glucose dysregulation with neuro-degeneration leading to cognitive impairment. Exact mechanism still unclear, proposed ones include changes in glucose metabolism, insulin signaling, alteration of blood brain barrier and mitochondrial function in the brain.

**Objective:** This study was aimed at comparing the frequency of cognitive impairment among type 2 diabetics with controlled vs. uncontrolled diabetes in order to establish an association between cognitive impairment and blood glucose levels.

**Methodology:** A comparative cross sectional study was conducted in Endocrine clinic of SIH. 150 diagnosed Type 2 diabetics, between the ages of 40 to 65 were inducted in the study. Based on their HbA1C levels, patients were divided in two equal group i.e. HbA1c of  $< 7\%$  was categorized as good glycemic control whereas  $> 7\%$  as poor control. Patients with history of previous stroke, any neurological or psychiatric disease, use of illicit drugs and language barrier were excluded. Urdu version of Montreal cognitive assessment (MoCA) was used to assess cognitive impairment, considering scores of 26 and above as normal and  $< 26$  as mild cognitive impairment. The data was entered in a standardized Performa, analyzed using SPSS version 20 and Chi-square test was used to establish the association between cognitive impairment and blood glucose levels. **Results:** 54 patients out of 75 i.e. 72% with uncontrolled diabetics had cognitive impairment. On the other hand, only 23 patients out of 75 i.e. 30.6% with controlled blood glucose levels had cognitive impairment. ( $P < 0.05$ )

**Conclusion:** a significant association between uncontrolled blood glucose levels and cognitive impairment.

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## THE DIAGNOSTIC VALUE OF ELECTROENCEPHALOGRAPHY IN PATIENTS WITH ALTERED MENTAL STATUS

Yusra Irshad, Nazia Baig, Farrukh Mateen, Ali Thaver, Arsalan Ahmad  
*Shifa International Hospital*

**Introduction:** EEG is a diagnostic tool for assessing functional status of the brain and reflects the relation

between the patient's level of consciousness and functional status. It helps to narrow down the differential diagnosis of altered mental status (AMS) when routine screening tests are unable to determine the cause.

**Methods:** We conducted a retrospective, descriptive study in the department of neurology, Shifa International hospital, Islamabad, Pakistan. EEG studies of admitted patients with altered mental status were reviewed from January 1, 2014 to December 31, 2014 and correlated with the discharge diagnosis and clinical data. Data was entered on a standard Performa and analyzed on SSPV V 20.

**Results:** 95 patient's EEGs were reviewed out of which 50.5% were females. Seventy three percent patients with AMS had a GCS of 10-14 with 20% patients with GCS 13. The main reason for AMS was electrolyte disturbances (57.9%) followed by electrolyte disturbances plus uremia 14.7%. The diagnosis of most of the patients prior to EEG was encephalopathy (31.9%), meningoencephalitis (26.6%) and subclinical seizure (18.1%). 80.9% of EEGs were abnormal. The EEG findings of 34% of patients showed theta and delta activity and theta activity alone in 29.8%. The conclusive diagnosis after performing EEG's of most patients was encephalopathy 59.6% while 19.1% had normal EEGs.

**Conclusion:** EEG is a good diagnostic test for patients with AMS. Further larger studies are needed.

#### SEASONAL VARIATION OF CEREBRAL VENOUS SINUS THROMBOSIS PRESENTING TO A TERTIARY CARE HOSPITAL IN ISLAMABAD

Memoona Nasir, Nabeel Muzaffar Syed, Salman Mansoor, Farhan Khan, Maimoona Siddiqui, Yousuf Choudhary  
*Shifa International Hospital*

**Introduction:** Cerebral venous sinus thrombosis (CVT) is a less known entity compared to arterial ischemic stroke. Studies on epidemiology and risk factors of the disease found a seasonal variation in the occurrence of the disease with various studies reporting peaks in different seasons. Our study aims to study the chronobiology of CVT in our region.

**Objectives:** To determine the seasonal variation of CVT in patients in our tertiary care hospital  
**Methods:** It was a retrospective chart analysis which included patients from April 2002 to February 2016. Patients with established diagnosis of CVT by CT or MRV were included in the chart analysis. Data was analyzed

using SPSS v21 for demographic variables and the month of presentation during one calendar year.

**Results:** 107 patients were included from April 2002 to February 2016. The mean age was 34.1 yrs. 46% were males and 54% were females. The greatest percentage of patients had onset of symptoms in February and April. The lowest incidence was seen in March followed by June. The seasonal incidence was highest in Summer (32%) followed by Winter (30%) and least in Autumn (13%).

**Conclusion:** The incidence of cerebral venous sinus thrombosis varies throughout the year. The higher frequency in February and April may be due to the inability to adapt to the changing climate in individuals with an underlying predisposing condition leading to relative dehydration and hypercoagulability. Our study showed results that differed from the other studies when seasons were studied. The overall increased frequency in summer may be due to the longer duration of the season as defined.

#### PATTERNS OF NEUROLOGICAL COMPLICATIONS IN THE IMMEDIATE POST-OPERATIVE PERIOD IN LIVER TRANSPLANT RECIPIENTS AT SHIFA INTERNATIONAL HOSPITAL, ISLAMABAD, PAKISTAN

Nabeel Muzaffar Syed, Memoona Nasir, Salman Mansoor, Faleha Zafar, Mohammad Salih, Faisal Saud Dar, Arsalan Ahmad, Maimoona Siddiqui  
*Shifa International Hospital*

**Introduction:** Neurological complications occur frequently in liver transplant recipients. These include seizures, osmotic demyelination syndrome, movement disorders, neuromuscular disorders, stroke and CNS infections. Almost 75% of the neurological complications occur within the first month after the transplant. No studies have been done to evaluate the neurological complications in patients undergoing liver transplant at Shifa International Hospital. Studying the associations and possibly causes of such complications may help us take measures to avoid them.

**METHODS:** Approval was taken from the IRB of Shifa International Hospital. The liver transplant recipients were identified using the Liver Transplant Registry of the hospital. All cases liver transplant recipients were included till the date of the study. Patients who did not survive 1 week after the transplant were excluded. Each patient's chart was reviewed for documented neurological complications within 30 days of the liver

transplant. A Performa was filled for each patient. For qualitative variables, frequencies were calculated and Chi-square test was applied to compare the frequencies of categorical variables. P-value of < 0.05 was considered significant. For quantitative variables, mean  $\pm$  SD was calculated.

**Results:** The data collection process is underway. So far the charts of 39 patients have been reviewed. We are submitting the preliminary results of these 39 patients. Seizures occurred in 5.1% of patients and 2.6% of patients developed tremors and CNS tuberculosis. The rest of the neurological complications have not been observed so far. The complete results will be analyzed once the data collection is completed.

**Conclusion:** Will be made after the collection of data is completed.

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### Frequency And Types Of Epilepsy In Children With Cerebral Palsy At A Tertiary Care Hospital In Karachi.

Raman Kumar, Shahnaz Ibrahim, Azeem Khan  
*Aga Khan University Hospital, Karachi*

**Background:** Very limited local data is available for the types of cerebral palsy in children and their association with epilepsy which results in high levels of psychosocial difficulties for children and all family members.

**Objectives:** To determine the frequency and types of epilepsy in children with cerebral palsy at a tertiary care hospital in Karachi.

**Methods:** All children up to the age of 16 years in pediatric neurology clinic were included. Patient's demographics and history was recorded. The type of epilepsy in cerebral palsy and EEG and Brain imaging findings were recorded.

**Results:** 215 cerebral palsy children till age of 16 years were included. Mean age, 64 months  $\pm$  46 months. 56% males, 44 % females. 32% had Epilepsy and 68% were without Epilepsy. 84% had generalized seizures and 16% had partial seizures. 33% of the cerebral palsy were Diplegic, 29.3% hemiplegic, 24.7% Quadriplegic, 8.4% Mixed and 4.7 % were Ataxic/Hypotonic. Hemiplegic type 63% had maximum presentation with epilepsy. OR = 7.37, 95% CI (3.8-14.1).

**Conclusion:** 32% of the Cerebral Palsy children had epilepsy with maximum hemiplegic type 63%. OR = 7.37, 95% CI (3.8-14.1).

### The Mcdreamy Mania Or A Choice Of Sane Minds

Rahy Farooq, Neha Siddiqui, Salman Mansoor, Hamza Hassan Khan, Naveen Zaidi, Sehrish Javed  
*Federal Medical & Dental College Islamabad, Shifa International Hospital Islamabad*

**Introduction:** Neurology is a specialty which encompasses bewildering aspects and perplexed diseases. It is not possible for a general physician to treat such myriads of diseases with highly variable diagnostic techniques and its implications. Being a complex field, neurology is naturally the choice of inquisitive, progressive and intelligent people. This study aims to evaluate the influence of personality traits of future doctors, in choosing Neurology as a career option.

**METHODS:** A cross-sectional survey was conducted amongst 453 medical students and house officers in Islamabad, Pakistan. Using the Big Five Inventory scale, the questionnaire reflected 5 personality traits namely openness, conscientiousness, extroversion, agreeable, and neuroticism. Data was analyzed using SPSSv23. Independent sample t-test was used to compare the personality traits of participants opting for neurology to those choosing other specialties.

**Results:** A total of 284 (62.69%) females and 169 (37.3%) males responded to the questionnaire. The mean difference of percentages for conscientiousness was significantly greater for males ( $p=0.019$ ), whereas for neuroticism it was higher in females ( $p$  value= $0.000$ ). The means for extroversion and openness were significantly higher in participants opting neurology than those choosing internal medicine; openness also being higher in comparison to all other groups combined. Similarly for neuroticism the mean difference was significant in Dermatology and General surgery as compared to Neurology ( $p<0.05$ ).

**Conclusion:** In developing countries where subspecialties are still evolving, there is a prodigious void. Neurological disorders contribute to an ever-increasing burden on the healthcare framework which goes unaddressed. Hence a deeper exploration into these intricate personality traits is needed. We recommend installation of career counselling programs addressing specialty choices in medical schools.

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### SLEEP PROBLEMS: A ROMANTICIST DILEMMA YOU MIGHT NOT BE IN LOVE, IT'S YOUR MEDICAL CONDITION!

Neha Siddiqui, Rahy Farooq, Salman Mansoor, Maimoona Siddiqui  
*Federal Medical and Dental College and Shifa International Hospital Islamabad*

**Introduction:** Aging is associated with several well-described changes in patterns of sleep. Little is known about the effect of smoking and various comorbidities on quality of sleep and daytime functioning in elderly. Sleep disorders result in increased risk of morbidity and mortality.

**OBJECTIVE:** To determine the frequency of sleep disorders, effect of various demographic variables and comorbidities on the quality of sleep, in elderly.

**METHODS:** This study was conducted in elderly at two tertiary care centers. A pre-designed questionnaire was administered combining two standard scales; The Pittsburgh Sleep Quality Index (PSQI) and Epworth Sleepiness Scale (ESS). The scales determine sleep quality and level of daytime sleepiness respectively. Data was analyzed using SPSSv21.

**Results:** There were 1000 elderly subjects, of them 51.6% had PSQI score of 5 or more. 26.5% of the subjects had ESS score of more than 10. Sleep disturbances were more in females ( $p$  value=0.007). Majority of the participants who smoked, had coronary artery disease, renal disease or arthritis had a higher mean on PSQI with a statistically significant correlation ( $p$  value < 0.05). A significant mean difference was also identified in subjects who had asthma, obesity, psychiatric illnesses and dementia on ESS.

**Conclusion:** Our study suggests a significant burden of sleep related disorders in the elderly which indirectly implies a poor quality of life. We recommend using PSQI and ESS scales in an outpatient setting to identify and address these disorders in order to elate the quality of life in elderly.

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## PUBLIC AWARENESS ABOUT RISK FACTORS AND WARNING SYMPTOMS OF STROKE

Dr. Farkhanda Qaiser, Prof. Muhammad Athar Javed, Dr. Syed Arslan Haider  
*King Edward Medical University, Mayo Hospital*

**Background:** Timely arrival at the hospital after stroke onset and adherence to primary prevention depend on public awareness about warning symptoms and risk factors of stroke.

**Objectives:** To assess and compare public awareness about risk factors and warning symptoms of stroke among different sectors of population based on the level of education.

**METHODS:** A survey was conducted from August 2015 to October 2015 by the Neurology department of Mayo

Hospital, Lahore, Pakistan. The study subjects were the relatives of patients coming to the outpatient department of the hospital and first year MBBS students of King Edward Medical University.

**Results:** A total of 500 individuals were interviewed during the study period (49.8% males, mean age 31.85). Of these, 99.4% had heard about stroke. 73.6% correctly listed at least one warning symptom of stroke. The most frequently noted symptom was weakness of any body part (36.7%), followed by unilateral weakness (24.3%) and numbness of any body part (5.9%). The illiterate people were least likely to know about the warning symptoms of stroke ( $p$ -value < .001). Regarding the risk factors of stroke, 63.6% had no knowledge about them and 25.6% knew at least one. The most commonly identified risk factor was hypertension (22.1%) followed by stress (10%) and diabetes mellitus (6.1%). The illiterate people and students of first year MBBS were least likely to know about the risk factors ( $p$ -value < .001).

**Conclusion:** Considerable effort is needed to increase public awareness especially about risk factors of stroke so that they can be prevented.

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## SEVERITY OF DEPRESSION IN EPILEPTIC PATIENTS

Ashar Sami, Fatima Farahi, Mohammad Aizaz Imtiaz Khan  
*Foundation University Medical College, Islamabad*

**Background/introduction:** Depression is one of the most common psychiatric disorders in epilepsy<sup>1</sup>. Former researches have produced a significant relationship between depression and epilepsy<sup>2</sup>. Although it has a high prevalence, depression is not easily identified nor cured in the patients<sup>3</sup>. Depression adversely affects the quality of life in epileptic patients and may alter the clinical course of the disorder<sup>4</sup>.

**Objective/aim:** The objective of the study was to determine the rate of severity of depression among the epileptic patients.

**Methodology:** A cross-sectional analysis was done on a total of 69 patients over a course of 3 months from December 2015 to February 2016 which comprised of seven visits to the Neurology Out-Patient Department [OPD] at Fauji Foundation Hospital, Rawalpindi [FFH] and Federal Government Services Hospital (Polyclinic) Islamabad [FGSH] and assessment was done through questionnaires supervised under medical consultants within the respective hospitals. The tool of the study was the Hamilton Rating Scale for Depression (HAMD)<sup>5</sup>.

**Results:** The mean age of the patients categorized

according to us are as follows: under 20 years of age (both male and female) : 15.44 years , above 20 years of age (both male and female) : 32.33 years .The percentage of patients according to gender are: males only : 40.5% (28 in number) and females only: 59.5% (41 in number) .The scale provided in the HAMD indicates that scores between 0 and 7 are taken to be normal, scores equal to or above 20 indicate moderate, severe or very severe depression. We considered scores between 8 and 19 as indicating a mild form of depression. The results are as follows: ,0-7 (normal)= 2.9% , 8-19 (mild)= 31.9% and Above 20 (moderate to severe) = 65.2% .

**Conclusion:** The study establishes an essential link between depressive symptoms and epilepsy. Patients who present to neurology OPDs with epilepsy should be referred to a psychiatrist for treatment of their depression.

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### QUALITY OF SLEEP IN PREGNANCY AND SOCIO-DEMOGRAPHIC FACTORS ASSOCIATED WITH POOR SLEEP QUALITY

Usama Bin Zubair, Zaib Asfandyar, Usman Ali  
*Foundation University Medical College*

**Objective:** To determine the Quality of sleep among pregnant ladies and analyze the associated socio demographic factors.

**Subjects and Methods;** The sample population comprised of 114 pregnant ladies reporting for ante natal checkup at Military Hospital (MH) Rawalpindi. Quality of sleep was assessed using Pittsburgh Sleep Quality Index (PSQI). Age, gestation, parity, planned or unplanned pregnancy, education, level of family income and tobacco smoking were related with sleep disturbances.

**Results:** Out of 114 ladies screened through PSQI, 26.3% had good sleep quality while 73.7% had poor sleep quality. With logistic regression we found that increasing age, third trimester and low family income had significant association with poor sleep quality.

**Conclusion:** This study showed a high Prevalence of poor sleep quality among pregnant ladies. Special attention should be paid to ladies with more age, from low socio economic background and those who are in third trimester

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### AWARENESS OF FINAL YEAR MBBS STUDENTS AND HOUSE OFFICERS ABOUT DIAGNOSIS AND MANAGEMENT OF STROKE: A CROSS SECTIONAL SURVEY

Mohammad Umar Khubaib, Mohsin Masud Jan, Sana Sohail, Ahmad Waqas, Farooq Azam Rathore.  
*Affiliated institute: CMH Lahore Medical College.*

**Background.** Stroke is the leading cause of neurological disability worldwide. In Pakistan, House Officers (HO's) are usually the first contact for stroke patients in the Emergency Department (ED), having to quickly diagnose and manage it. Many Final Year students will also face this situation soon.

**Objectives.** To document the knowledge and confidence of Pakistani Final Year students and HO's regarding diagnosis and management of stroke.

**Methods.** Ethics Review Committee's approval was obtained. Questionnaire was constructed using two standard textbooks of medicine and current American Heart Association guidelines. The questionnaires were distributed to 800 Final Year students and HO's in thirteen medical colleges/hospitals in four cities. Data was analyzed using SPSS V.20.

**Results.** The respondents (31.4%) who had managed stroke were more confident in its diagnosis ( $p < 0.001$ ) and management ( $p < 0.001$ ). Those with family member/s suffering from stroke were more confident in diagnosing it ( $p < 0.05$ ) but not managing it ( $p = 0.41$ ). Most knew about the best initial test (88.1%), aspirin's dosage (64.9%), time-limit for thrombolysis (67.4%) and the risk of deep vein thrombosis in immobilized patients (85.4%). Significantly fewer knew the most accurate test (25.9%), the initial intervention in acute ischemic stroke (44.5%), the first management step for hemorrhagic stroke (58.1%) or when to prescribe statins in a stroke patient (31.5%).

**Conclusion.** This survey shows that knowledge and confidence of Final Year students and HO's in Pakistan regarding stroke is mostly inadequate. Weak areas need to be identified and medical personnel trained in stroke management.

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### PREVALENCE OF POST-STROKE DEPRESSION IN FEMALES

Tashfeen, Maida Khalid, Kiran Bukhari, Zainab Farooq, Shaarikh Pasand, Faiza Batool  
*Foundation University Medical College*

**Background:** Depression, feelings of hopelessness and dejection is more prevalent among post-stroke survivors. PSD (post-stroke depression) affects the emotional health and slows down the recovery rate of post-stroke survivors.

**Aim/objective:**The objective of the study is to: a) Rate the severity of post-stroke depression in females b) Identify the underlying cause of PSD prevalence in females

**Methodology:**A phq-9 health questionnaire was deployed to assess the severity of depression in 71 female patients who were 55 to 80 years old (mean age = 64). They were admitted to Fauji Foundation Hospital (FFH), Rawalpindi. The diagnosis of a patient with a phq-9 total score of 5-9 is "minimal symptoms", 10-14 is "minor depression", 15-19 is "major depression-moderately severe" and >20 is "major depression-severe"

**Results:**Only 2 females had "minimal symptoms", 19 females had "minor depression", 38 females had "major depression-moderately severe" and 12 females had "major depression-severe". Therefore, 53.5% females lied in the "major depression-moderately severe" category, 26.8% females had "minor depression", and 16.9% females had "major depression-severe" and only 2.8% females showed "minimal symptoms". This shows that most of the females (apart from those in the "minimal symptoms" category) required Antidepressant therapy or psychomotor therapy after one or more incidence of stroke. All of the females showed at least some depressive symptoms mainly due to "increased dependence on others".

**Conclusion:**Pervasiveness of post-stroke depression in females due to racial, ethnic and economic divides, increased dependence on men associated with marital problems and family responsibilities.

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#### "ANTI-NMDA RECEPTOR ENCEPHALITIS: A RARE IMMUNOLOGICAL DIAGNOSIS"

Salman Mansoor, Ahmed Shah bukhari, Nabeel Muzaffar Syed, M.Amjad, Tahir Aziz  
*Shifa International Hospital*

**ABSTRACT:**Anti-N-methyl-D-aspartatereceptor (anti-NMDA-R) encephalitis is an immune-mediated syndrome that remains under-recognized despite a growing body of literature. This syndrome has been predominantly described in young females with a constellation of symptoms, including personality changes, autonomic dysfunction and neurologic decompensation. We describe a case of anti-NMDA-R encephalitis in a female lady who presented with drowsiness, disorientation, dystonic movements and signs of severe depression. Her past medical history was significant for intractable resistant unexplained seizures 1.5 years back for which she remained in an

intensive care unit on mechanical ventilation for a month at another healthcare facility. She remained seizure free since that time. On presentation in emergency department patient was disoriented, confused and had jerky movements. There was a sudden drop in her conscious level for which she was intubated and received empiric treatment for meningoencephalitis. CSF analysis showed high white cell count with predominant lymphocytic picture. Her cultures and HSV-PCR were negative. In lieu of her significant past medical history and current admission vasculitic or an underlying autoimmune etiology were suspected. So the workup was sent which was positive for NMDA antibodies. So final diagnosis of anti-NMDA-R encephalitis was finally made. After confirmation, plasmapheresis was initiated and patient received 4 sessions, after which she was shifted to another health care facility for further management. This case emphasizes a need for high diagnostic suspicion for autoimmune encephalitis in patients with signs of suspected encephalitis with unexplained etiologies. So a prompt treatment should be started.

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#### COLORECTAL CANCER METASTASIZING TO BRAIN WITH PRESENTATION OF NEUROPSYCHIATRIC

Ahsan Zil E Ali, Syed Muhammad Hammad Ali, Asma Waheed  
*Fatima Memorial Hospital*

**ABSTRACT:**Metastatic brain tumors from colorectal cancer is a very rare condition and ominous for health. Almost 0.3% to 9% of colorectal cancers metastasize to brain which requires extensive surgical resection with whole brain radiation therapy which results in poor prognosis and median survival up to 12 months or less. A case of 80 years old, hypertensive man presented in ER with altered sensorium and malaise for past 2 days. Patient could not respond to his attendants along with disorganized conversation. Patient had long lasted constipation and abdominal discomfort. 3 months back patient had mild dementia with multiple episodes of leaving home without telling the caregivers, he also had couple of suicidal attempts, a road accident while running confused on road, usage of abusive language and defiant behavior. T1 and T2 weighted images on MRI showed enhancing ringed lesions, cerebral edema and inflammatory foci of embolic origin. The provisional diagnosis including infectious and vascular causes was ruled out by appropriate tests which were followed by FDG-PET scan. This scan detected colorectal cancer and multiple malignant foci in liver as well. Increased CEA levels (42 ng/mL) confirmed the site of origin of cancer. Consent was taken by the patient's caregivers and appropriate counseling was done. Hartmann's procedure was operated with formation of ileostomy. The case was referred to panel of oncologists for further management



## ANTERIOR SACRAL MENINGOCYSTOCELE; AREPORT OF TWO CASES AND REVIEW OF LITERATURE

Tayyaba Saif, Adil Aziz Khan, Shafaq Mahmood  
*Rawalpindi Medical College*

**ABSTRACT:** Anterior sacral meningocele is a rare congenital anomaly. This condition arises in association with a congenital or acquired defect in the sacrum and coccyx, through which the caudal part of the meninges may herniate to form a cyst like structure. We report here two cases of anterior sacral meningocele, a 65 years old male with urinary retention, chronic constipation and backache for two weeks and a 17 years old girl with abdominal heaviness and backache for the past four years. MRI pelvis and lumbosacral spine was done which showed anterior sacral meningocele. A posterior midline approach for the defect repair was done which involved identification and closure of the defect. The symptoms of both the patients were successfully alleviated without any recurrence. The puncture or aspiration of a meningocele can lead to fatal complications, therefore proper evaluation of every doubtful cyst in the pelvis is important before treatment.

## TWO CASES OF SPONTANEOUS VERTEBRAL ARTERY DISSECTION PRESENTING AS POSTERIOR CIRCULATION STROKE IN YOUNG PATIENTS

Dr Memoona Nasir, Dr Waseem Tariq Malik, Dr Raja Farhat  
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**ABSTRACT:** Ischemic stroke secondary to vertebral and carotid artery dissection accounts for 2% of ischemic strokes overall and 10-25% of stroke in young individuals. Spontaneous vertebral artery dissection is even rarer but potentially underdiagnosed cause of stroke in young. We present two cases of spontaneous vertebral artery dissection presenting as posterior circulation stroke. Cases: Our first patient was a 32 year old gentleman who presented with sudden vertigo, vomiting and tendency to fall towards right side. On examination he had features of right lateral medullary syndrome which was confirmed on MRI DWI sequence. CT angiography revealed dissection of right vertebral artery. Our second patient was a 30 year old gentleman who came with sudden onset left hemiparesis followed by right hemiparesis with swallowing and speaking difficulty. His MRI revealed brainstem and cerebellar infarcts and CTA was suggestive of left vertebral artery dissection. Both patients had no history of trauma, had neck pain preceding the symptoms and had no other risk factors for stroke. MRA did not reveal dissection in either patient and thus it could have been missed

unless suspected. After initial treatment in acute stroke unit they were started on anticoagulation therapy. They had physiotherapy and rehabilitation and both improved significantly. Conclusion: Vertebral artery dissection should be considered as a cause of posterior circulation stroke in young patients even without history of trauma and in absence of other risk factors.

## CEREBRAL VASOSPASM ASSOCIATED WITH SUBARACHNOID HEMORRHAGE TREATED SUCCESSFULLY WITH INTRA-ARTERIAL VERAPAMIL.

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**ABSTRACT:** The incidence of SAH is approximately 9 cases per 100,000 patients. Cerebral vasospasm is one of the complications of subarachnoid hemorrhage that is associated with significant mortality and morbidity. Systemically administered nimodipine and hemodynamic therapy are the mainstays of vasospasm prevention and treatment. Endovascular therapies including angioplasty and selective intra-arterial vasodilator infusion are typically used when conventional measures fail. Intra-arterial use of calcium channel antagonists, including verapamil has gained interest. We report a case of female who developed vasospasm secondary to subarachnoid hemorrhage and was treated with intra-arterial verapamil. Case Description: A 63 years old female presented with history of subarachnoid hemorrhage presented with headache and weakness of the right half of the body. O/E she was confused and power in the right upper limb was 2/5 and 3/5 in the right lower limb. Follow up MRI showed cerebral vasospasm. She was given intra-arterial verapamil 15 mg daily for two consecutive days and she improved. Discussion: Intra-arterially administered verapamil can be effective for cerebral vasospasm. Intra-arterial route has little effect on hemodynamics which include changes in mean arterial pressure, intracranial pressure, cerebral perfusion pressure and cerebral blood flow. In brain, its exact mechanism of action is unknown but believed to act through calcium channel antagonism. Use of other calcium channel blockers to treat cerebral vasospasm has also been proven effective for example nimodipine. Conclusion: For its efficacy, quick action and less changes in parameters of blood flow, intra-arterial verapamil is proven to be more effective treatment of cerebral vasospasm.

## SPINAL CORD INJURY WITHOUT RADIOGRAPHIC ABNORMALITY (SCIWORA) IN ADULTS: A CASE REPORT OF TWO CASES.

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**ABSTRACT:** Spinal cord injury without any radiological abnormality (SCIWORA) is rare in adults. We describe here two case reports of adult patients, who presented to us with quadriplegia, following a road traffic accident. Plain radiography and computed tomography of cervical spine were normal. Hence the patients were diagnosed as cases of adult SCIWORA. However, subsequent magnetic resonance imaging (MRI) of the two patients revealed cervical cord injury in the form of cord contusion and disc protrusion, respectively. Patient with cord contusion was managed medically, whereas the patient with disc lesion was treated with discectomy. Patient treated with discectomy showed marked improvement. Therefore, patients having no osseous injury on X ray and CT scan should have an MRI study done to look for surgically correctable pathology. As in such rare patients of SCIWORA an early diagnosis and timely intervention is crucial; with MRI playing a pivotal role.

#### DUAL PATHOLOGY OF BRAIN LESION

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**ABSTRACT:** The hypothalamus can be affected by a wide range of lesions. Hypothalamic lesions can extend to involve the surrounding structures, and similarly, the hypothalamus can be involved by lesions affecting the sellar-suprasellar cistern, third ventricle, or thalamus. We present here a case of 15 year old girl who presented with headache, decreased vision, slurring of speech and right sided weakness for 20 days. Multiplanar and multi sequential imaging done through brain acquiring T1/T2 W1 sequences with axial and sagittal reformatting. Findings include a large lobulated area of decreased to intermediate intensity in sellar and suprasellar region on T1W1, heterogeneously hyper intense on T2W1 and heterogeneously hyper intense on FLAIR sequences while on post contrast T1W1 this lesion is showing enhancement of its inferior component while its superior component is not showing any significant enhancement. The enhancing component measures 2.7\*2.0\*2.0cm. Inferiorly the lesion is extending into sella abutting the compresses pituitary gland while superiorly the large non enhancing component is extending into 3rd ventricle. Posteroinferiorly the lesion is lying closely with basilar artery at the superior most part of the pons also minimally extending into interpeduncular cistern while anteroinferiorly the mass is abutting the frontal lobes in midline while anterosuperiorly the mass is stretching the optic chiasma. Lesion is causing expansion of sella and is abutting the carotids in bilateral cavernous sinuses

however it is not invaginating into cavernous sinuses. There is diffuse area of abnormal signal intensity seen in left cerebral peduncle and also in left half of midbrain and minimally the superior most part of pons appearing hypo intense on T1W1 and hyper intense on T2W1 and FLAIR sequences and is not showing enhancement on post contrast T1W1 suggesting ischemia. Bilateral lateral ventricles are significantly dilated with transependymal seepage. Following the case report, all relevant literature, differential diagnosis, and treatment of this rare tumor is reviewed.

#### ANUSUAL CASE OF EWING'S SARCOMA OF CERVICAL SPINE: A CASE REPORT AND LITERATURE REVIEW

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**ABSTRACT:** Ewing's sarcoma of spine is quite unusual and has been very rarely seen in cervical spine. 0.9% of all cases represent non sacral spine involvement. We report this rare lesion in 16 years old male who presented with progressively increasing posterior cervical swelling, local pain and dysphagia to solids. His CT-scan revealed mixed lytic and sclerotic lesion with typical moth eaten appearance in C1 and C2 vertebra with large extra osseous soft tissue and extradural component. MRI showed diffuse soft tissue intensity in the upper cervical spine with extension to the prevertebral region and nasopharynx. Histopathology revealed small blue round cell tumor suggestive of Ewing's sarcoma. Patient had uneventful surgery and was referred for chemotherapy. He came for follow up and was ameliorated in his condition.

#### INTRACRANIAL MENINGIOMA WITH EXTRA CRANIAL EXTENSION INTO THE FRONTAL SINUSES: A CASE REPORT AND REVIEW OF THE LITERATURE.

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**ABSTRACT:** Extracranial meningioma is an infrequent tumor, habitually found in the head and neck area. Afore surgical removal and histopathological examination, this diagnosis is rarely well-thought-out. Our case study reports this sporadic incident in a 57 yr old lady with an intracranial meningioma with extra cranial extension. MRI scan brain showed a well circumscribed lesion in the right frontal lobe with extension in the frontal sinus as well. Histopathological examination showed meningothelial meningioma. Rt. frontal craniotomy and tumor resection was done. Post operatively, patient was well and came for follow up. She was ameliorated in her condition. A review of the literature on meningioma's extending into ExtraCranial structures is discussed.