

PAKISTAN JOURNAL OF

SPECIAL ISSUE

# NEUROLOGICAL SCIENCES

DEDICATED TO THE PROMOTION OF NEUROLOGICAL SCIENCES IN PAKISTAN

# 23<sup>rd</sup> NATIONAL NEUROLOGY CONFERENCE

25-27 MARCH 2016 (Ramada Hotel, Islamabad)



**Organizer:** Pakistan Society of Neurology (PSN)

**Co-Organizer:** Neurology Awareness & Research Foundation (NARF)

**Hosted by:** Department of Neurology Pakistan Institute of Medical Sciences (PIMS), Islamabad

**PJNS**

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Affiliated with:

Pakistan Society of Neurology (PSN)

Pakistan Academy of Neurological Sciences (PANS)

Pakistan International Neuroscience Society (PINS)

Neurology Awareness & Research Foundation (NARF)

Recognized by:

Eastern Mediterranean Regional Office of the

World Health Organization (EMRO-WHO)

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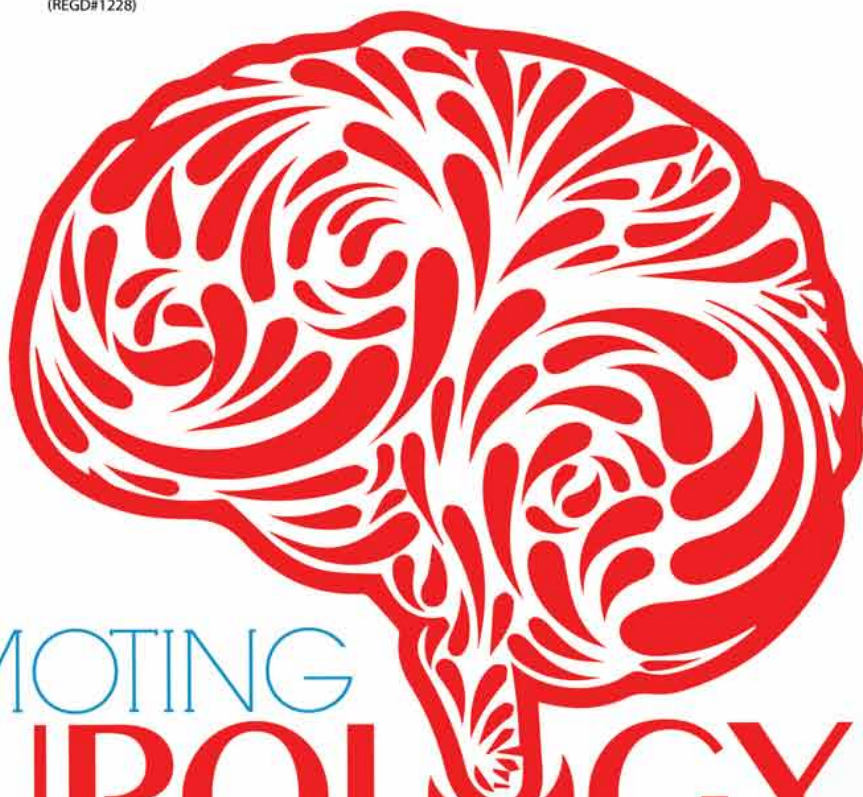
Higher Education Commission (HEC)

ISSN 1990-6269



**Neurology Awareness  
& Research Foundation**  
(REGD#1228)

Since 2007 NARF promoting the exchange of ideas and create awareness among the community about Neurology and its related subspecialties e.g. Epilepsy, Stroke, Headache, Movement Disorders, Muscular Disorders, Memory Impairment Disorders and other Neurological Ailments.



# PROMOTING NEUROLOGY AWARENESS

## EDUCATION

- Family Physician Training Programs
- Postgraduates Courses
- Neurology Updates
- International Movement Disorder Workshop
- Collaborate in the National Conferences
- Neurophysiology Workshops
- Neuroradiology Workshop
- Botox Workshop

### Secretariat

43-44 Defence Gardens, Phase I,  
Korangi Road Road D.H.A. Karachi 75500  
Ph: 021-35314137-8 Fax: 021-35314139  
E-mail: [info@paknarf.com](mailto:info@paknarf.com)

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## AWARENESS

- Organized Public Awareness Sessions
- Hold Press Conferences
- Developed Booklet, Flyers and Handbills
- Awareness Talk Shows on Electronic Media
- Publishing Newspaper Awareness and Other Print Media Advertisements

## RESEARCH

### PART OF PJNS

- Conducted Institute Base Studies
- Conducted Community Base Studies
- Family Physician Surveys
- Support and Guidance for Research Articles

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# Welcome to the Annual Conference of Pakistan Society of Neurology in PIMS, Islamabad March 25 - 27, 2016



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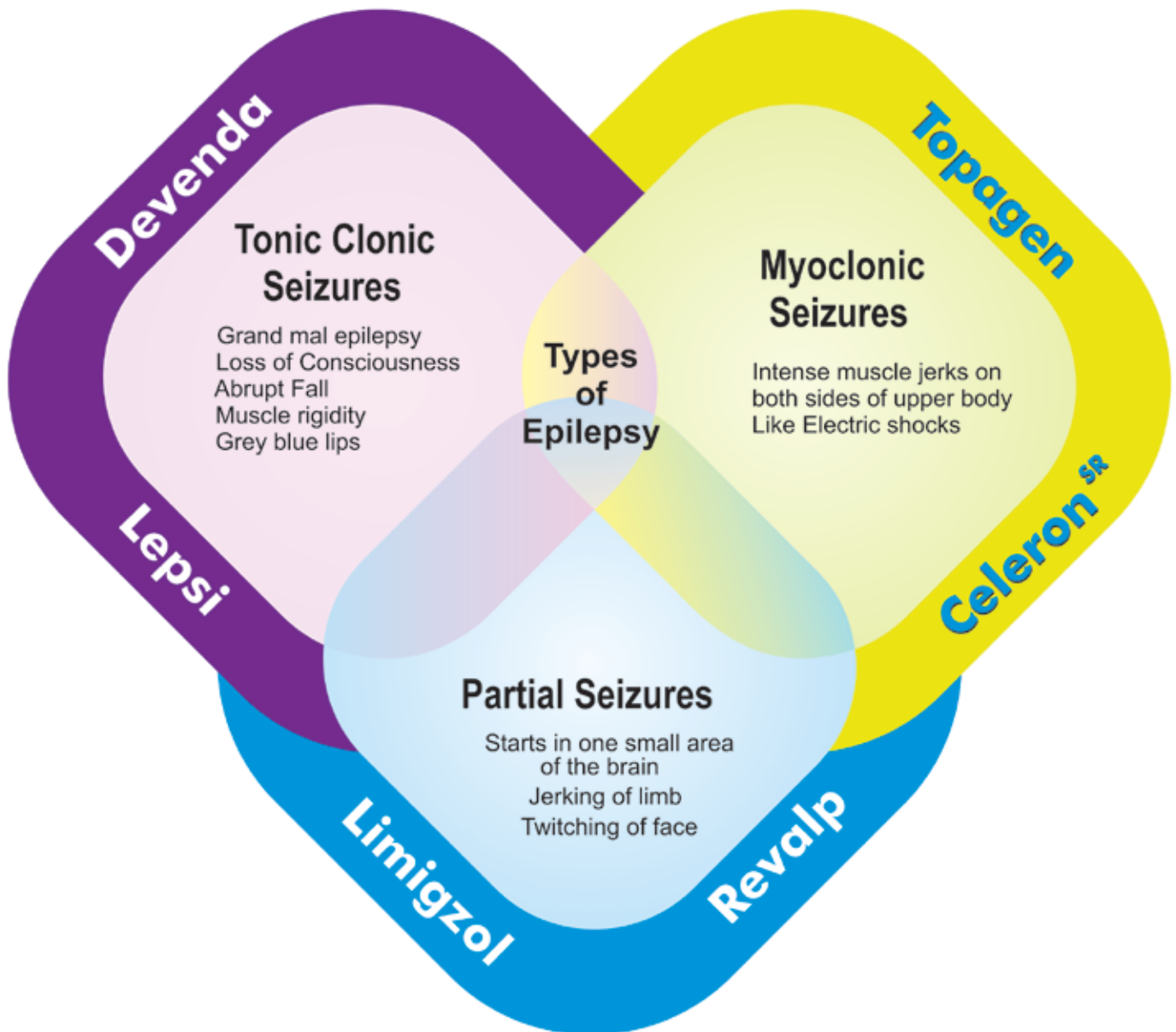
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- Primary generalized tonic-clonic seizures<sup>2</sup>
- Refractory epilepsy<sup>3</sup>
- Prevention of postoperative seizures after brain tumor resection<sup>4</sup>
- Post-stroke epileptic seizures<sup>5</sup>

### References:

1. Adapted From Striano PE, et al. Efficacy and Safety of Levetiracetam and Carbamazepine in Monotherapy in Partial Seizures. *Epilepsy Research and Treatment* Volume 2015. Article ID 615002. 6 pages <http://dx.doi.org/10.1155/2015/615002> available at <http://www.hindawi.com/journal/era/2015/615002>
2. Adapted From Basseel Aboo-Khalil. Levetiracetam in the treatment of epilepsy. *Neuroepileptology: Disease and Treatment* 2008; 29: 307-323
3. Adapted From H.P.H. Boonma et al. Long-term effects of levetiracetam and topiramate in clinical practice: A head-to-head comparison. *Seizure* 2009; 17: 18-26
4. Adapted From Tachibana Tadao et al. Levetiracetam versus Phenytoin for seizure prophylaxis during and early after craniotomy for brain tumours: a phase II prospective, randomised study. *J Neurol Neurosurg Psychiatry* 2013;86:1128-1132
5. Adapted From D. Cazzuch et al. Levetiracetam versus Carbamazepine in Patients with Late Poststroke Seizures: A Multicenter Prospective Randomized Open-Label Study (LPEC Project). *Cerebrum* (Doi: 10.1080/08933802.2009

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## 23<sup>RD</sup> NATIONAL NEUROLOGY CONFERENCE ORGANIZING COMMITTEE

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Pakistan Society  
of Neurology (PSN)

### Co-Organizer:



Neurology Awareness &  
Research Foundation (NARF)

### Host:



Pakistan Institute of Medical  
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اسلام آباد

MESSAGE



**Prof. Javed Akram**

Vice Chancellor  
SZABMU/ Pakistan Institute of Medical Sciences  
Islamabad, PIMS

It gives me immense pleasure to welcome all the worthy neurologists/scientists who are attending the 23rd National Neurology conference from all over Pakistan and abroad.

Although SZABMU/PIMS is a newly established university but within two years it has achieved a lot. It is ranked on second position in the recent PMDC rankings, after Agha Khan University. We have collaboration with the Royal College of Physicians for training of doctors and in conducting examinations. The university has hosted a number of national and international conferences in two years. Above all, we are promoting a sports culture among doctors of the university and its affiliated medical colleges which will lead to a healthy mind and healthy body.

I congratulate the Department of Neurology for arranging this event which will lead to a better understanding of the updates in the field of Neurosciences.

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MESSAGE



**Dr. Mazhar Badshah**

Chairman Organizing Committee

Pakistan Institute of Medical Sciences Islamabad, PIMS

I am delighted to welcome all the distinguished delegates to be a part of the 23rd National Neurology conference at the heart of Pakistan; Islamabad. The organizing committee has put in a lot of effort to make it a productive and pleasant event for all of you. I hope you will benefit from the scientific sessions and enjoy the arrangements and hospitality.

Neurology has made remarkable progress in Pakistan in the last few years due to the tireless efforts of the Pakistan society of Neurology. I am glad that we were bestowed the honor of contributing towards that goal this time. Eminent neuroscientists from across Pakistan and world over have kindly agreed to be a part of our academic and scientific program.

We have done our bit by working very hard for organizing the event. And honorable guests, the rest will be done by you by taking part in the event and making it successful. I hope we live up to the expectations.

I thank you all. My organizing committee and I bid you the best of cordial welcomes in Islamabad Bon sejour.

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MESSAGE



**Prof. Mohammad Wasay**

President Pakistan Society of Neurology (PSN)

Department of Neurology

The Aga Khan University Karachi 74800 Pakistan

Phone: (9221) 4930051 Ext. 4665, 4681

E-mail: mohammad.wasay@aku.edu

It gives me great pleasure to welcome you on behalf of Pakistan Society of Neurology to the 23rd National Neurology Conference in Capital of Pakistan.

With the efforts of Pakistan Society of Neurology and Neurology Awareness and Research Foundation, we are striving to raise public awareness of neurological disorders as well as to uplift the faculty of Neurology in Pakistan. In addition to Pakistan Journal of Neurological Sciences we are also publishing a Urdu magazine, Jahan-e-Asab , for raising public awareness.

I am thankful to the organizing committee especially Dr Mazhar Badshah and his team for organizing this meeting and to the participants who have come all the way from different areas of world especially to attend this conference.

This year more than 40 original researches are being presented via oral and poster presentations.

I hope it will be a fruitful session and a new learning experience for all of us.

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MESSAGE



**Prof. Arsalan Ahmad**

President-Elect PSN  
Shifa International Hospital, Islamabad

I would like to congratulate Dr. Mazhar Badshah and his team mainly Dr. Mansoor and Dr. Harris for organizing such a comprehensive and informative conference. Delegates are flying in from all over the globe for this National PSN meeting in the beautiful Capital city of Islamabad.

Islamabad is growing into a large hub for Neurologists in Pakistan with a good combination of senior and upcoming neurologists as well as three accredited neurology programs. AlhamdoLillah, what is even more heartening is the unity amongst neurologists in this city.

Over the last two years, we have been able to establish a two monthly half day academic neurology meeting regularly attended by most senior and junior and trainee neurologists. This has further encouraged our residents to learn from each other and gain from the strengths of each program.

Over the next few years we would like to see more of our young neurologist to choose career paths in different subspecialties and would welcome input and support from our international colleagues.

We are looking forward to meet all of you. Hope you have an exciting and enjoyable conference.

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## TENTATIVE PROGRAM AGENDA

### DAY 1 25th March Friday

08:30-09:00

**WORKSHOP REGISTRATION**

08:30-12:45

**PRE CONFERENCE WORKSHOPS**

225 mins session	STROKE WORKSHOP	BOTOX WORKSHOP	MEDICAL WRITING
	08:30-12:30 (3 hours, 45 mins)	09:00-12:15 (3 hours)	09:00-11:00 (2 hours)
	Dr. Suhail Abdulla AlRukn (UAE)	Dr. Danish Bhatti (USA)	Dr. Akhter Shiren (Kohat)
	Dr. Ismail Khatri (KSA)	Dr. Mansoor Iqbal (PIMS)	
	Dr. Hussnain Hashim (UAE)	Dr. Muhammad Amjad (SIH)	
	Dr. Maria Khan Junaidi (UAE)	Dr. Raja Farhat (SIH)	
11:00-11:15	Tea		
12:30-12:45	Certificate distribution		
	BREAK		
13:00-14:30	Jumma Prayer & Lunch Break		
14:30-14:50	Conference Registration		
	Post Lunch Session		
14:50-15:00	Recitation of Holy Quran		
15:00-15:10	Welcome Note	Dr. Mazhar Badshah	Chairman
15:10-15:20	Presidential Address	Prof. Mohammad Wasay	President PSN
15:20-15:30	Vote of Thanks	Dr. Rao Suhail	Chief Organizer
1530-1800 125 mins	Scientific Session 1		
	Chair: Prof. Arsalan Ahmad		
	Co-Chair: Dr. Mazhar Badshah		
15:30-16:10	Recent Advances in Dementia	Dr. Kaysar Mamun (Singapore)	40 min
16:10-16:55	Clinical spectrum and diagnostic approach to the patient with Autoimmune Encephalitis	Dr. Ismail Khatri (KSA)	45 min
16:55-17:15 20 mins	ASR & Tea Break		
17:15-17:35	Antibodies in diagnosis of Neurological disease	Prof. Tahir Aziz Immunologist (SIH, ISB)	20 min
17:35-17:55	Neuroradiology of Metabolic Encephalopathies	Dr. Atif Rana Radiologist (SIH, ISB)	20 min
17:55-18:00	Distribution of Certificates		
	End of Scientific Session & Break		
19:00-21:00	Inaugural Ceremony		
	Inaugural Banquet Dinner		

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## DAY 2 26th March Saturday

### 09:00-11:10 130 mins Scientific Session 2

Chair: Prof. Mohammad Wasay

Moderator: Dr. Suhail Abdulla Al Rukn

Co-Chair: Prof. Naila Shehbaz

Prof. Mussadiq Khan

09:00-09:30	Establishing stroke program-challenges and opportunities.	Dr. Suhail Abdulla Al Rukn (UAE)	30 mins
09:30-09:55	Clinical applications of Transcranial direct current stimulation: Must they start or should they still watch in developed and Underdeveloped countries?	Dr. Shahid Bashir (Harvard Medical school, Boston, USA)	25 mins
09:55-10:15	Data of Carotid End arterectomy	Prof. Mussadiq Khan (SIH, ISB)	20 mins
10:15-10:30	Training Program for Primary Physicians in the prevention, Diagnosis & Management of Stroke	Dr. Abdul Malik (KHI)	15 mins
10:30-11:00	Controversies in Stroke: Carotid End Arterectomy vs Carotid artery Stenting	Dr. Qasim Bashir (CMH, LHR) Dr. Omer Ehsan (SIH, ISB)	30 mins

11:00-11:15 15 mins Tea Break

### 11:15-13:15 115 mins Scientific Session 3

Chair: Prof. Muhammad Tariq

Co-Chair: Brig. Dr. Wasim Alamgir

11:15-11:35	National Epilepsy Guidelines	Dr. Fawzia Siddiquee (AKU, KHI)	20 mins
11:35-11:55	Psychiatric co-morbidity of Epilepsy	Prof. Sayed Mohammad Sultan (KMC, PEW)	20 mins
11:55-12:15	Infantile Spasms	Dr. Tipu Sultan (CH, Lahore)	20 mins
12:15-12:25	Epilepsy and Pregnancy	Dr. Haris Majid (PIMS, ISB)	10 mins
12:25-12:45	CNS Tuberculomas	Prof. Athar Javed (KEMU, LHR)	20 mins
12:45-12:55	Quinolones in TBM	Dr. Mansoor Iqbal (PIMS, ISB)	10 mins
12:55-13:10	PJNS Publications: PJNS and Jahan e Asaab	Prof. Wasay (AKU, KHI)	15 mins
13:10-13:15	Certificate Distribution		
13:20-13:45	Zuhr Break & Lunch		
13:45-14:00	Visit of Stalls		
14:00-14:45 45 mins	Scientific Session 4		
14:00-14:45	Poster Presentations		

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## DAY 2 26th March Saturday

### 14:45-16:55 130 mins Scientific Session 5

Chair: Prof. Nadir Zafar

Co-Chair: Prof. Alam Ibrahim

14:45-15:05	Approach to refractory GBS (non-responder or poorly responder)	Dr. Sara Khan (AKU, KHI)	20 mins
15:05-15:25	Immunomodulatory therapies in GBS	Prof. Muhammad Tariq (ISB)	20 mins
15:25-15:45	Updates in Myasthenia Gravis	Dr. Rao Suhail (PIMS, ISB)	20 mins
15:45-16:05	Trigeminal Autonomic Cephalgias	Dr. Aziz Sonawalla (AKU, KHI)	20 mins
16:05-16:25	Update from CPSP	Prof. Sarwar Siddiqui (AKU, KHI)	20 mins
16:25-16:45	Neurological manifestations of lupus	Dr. Mohammad Saeed (Rheumatologist, KHI)	20 mins
16:45-16:50	Certificate Distribution		

### 16:50-17:15 25 mins ASR & Tea Break

### 17:15-18:10 55 mins Scientific Session 6

Chair: Prof. Saleem Barech

Co-Chair: Dr. Mohsin Zaheer

17:15-17:35	Clinical implications of Neurogenetic testing	Dr. Saima Siddiqi (IBGE, ISB)	20 mins
17:35-17:55	Gene Mapping in Families with Neurogenetic Syndromes from Pakistan	Dr. Jawad Hassan (NUST, ISB)	20 mins
17:55-18:00	Certificate Distribution		

### End of Scientific Session & Break

18:30-19:00 Business meeting

20:00-21:30 Gala Dinner- Monal Restaurant- Pir Sohawa

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**DAY 3 27th March Sunday**

**PAPER PRESENTATIONS**

**JUDGES:**

1. Prof. Sarwar Siddiqui | 2. Dr. Akhter Shiren | 3. Col. Dr. Babar Khan

09:00-11:00 120 mins		Scientific Session 7	PAPER PRESENTATIONS-1	12 papers
01	Neuro myelitisoptica and Neuromyelitisoptica-Ig Gsero Positivity in Saudis with demyelinating diseases of the central nervous system		Ali M Al- Khathaami , Faisal Yunus, Mohammad J Alamgir, Suleiman Kojan, Mohammed Aljumah (KSA)	10 mins
02	Clinical profiles, management and outcome of Myasthenic crisis in a tertiary care center in Karachi, Pakistan.		Dr. Sara Khan Dr. Dureshahwar Kanwar, Dr. Sadia Nishat (AKU, KHI)	10 mins
03	To determine the frequency of nonmotor symptoms in Parkinson's disease. To compare frequency of non-motor symptoms in mild and severe disease.		Dr. Saira Saad (PIMS, ISB)	10 mins
04	To compare the knowledge, attitude, and practice of guardians of epileptic patients visiting out patient department of tertiary care hospital(kap study)		Natasha Ghani, Shaila Ali,Faisal Zafar (CH, LHR)	10 mins
05	Spectrum of GBS in Children		Shaila Ali, Zia-ur-Rehman, Tipu Sultan (CH, LHR)	10 mins
06	Neuroradiology in tuberculous meningitis- diagnostic significance and prognostic value.		Sumaira Nabi Mazhar Badshah, Shahzad Ahmed, Ali Nomani, Irfan Ullah Khattak (PIMS, ISB)	10 mins
07	Development of diabetes associated alzheimer's disease model in balb/c mice		Meha Fatima Aftab, Shabbir Khan, Safina Ghaffar, Munazza Zohaer, Darakhshan Jabeen Haleem, Ayaz Ahmed, Rizwana S. Waraich (Uni of KHI)	10 mins
08	Role of Memantine as prophylactic agent in patients with Migraine		Muhammad Adnan Aslam, Mohammed Wasay, Ahsan Numan (FJMU, LHR)	10 mins
09	High HbA1c is associated with higher risk of ischemic stroke in non-diabetic Pakistani population		Dr. Uzma (PIMS, ISB)	10 mins

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**DAY 3 27th March Sunday**

**PAPER PRESENTATIONS**

10	Clinical audit of Tissue plasminogen Activator (r-tPa) Receptients in ischemic stroke patients presenting at a Tertiary Care hospital, in Islamabad Pakistan.	Salman Mansoor, Raja Farhat Shoaib, Faleha Zafar, Ahmed Shah Bukhari, Nabeel Muzaffar Syed, Memoona Nasir, Maimoona Siddiqui, Muhammad Azhar Saeed , Waseem Tariq Malik , Muhammad Amjad (SIH,ISB)	10 mins
11	Resource Utilization for Patients with Intracerebral Hemorrhage Transferred to a Comprehensive Stroke Center at Baylor University Medical Center	Mahdi Haq, Osman Mir, AnwarulHaq (PMC, PSW)	10 mins
12	Public Awareness about risk factors and warning symptoms of stroke	Dr. Farkhanda Qaiser Prof. Muhammad Athar Javed, Dr. Syed Arslan Haider (KEMU, LHR)	10 mins
11:00-11:20 Tea Break			
11:20-12:10 50mins		<b>PAPER PRESENTATIONS-2</b>	<b>5 papers</b>
13	Burden of Headaches in a Neurology Outpatient Clinic	Ahmed Shah Bukhari <sup>1</sup> , Danish Hassan <sup>2</sup> , Arsalan Ahmad <sup>3</sup> (SIH, ISB)	10 mins
14	Frequency and causes of longitudinally extensive transverse myelitis in patients presenting to tertiary care Centre.	Dr. Safia Bano, Prof. Muhammad AtharJaved (KEMU, LHR)	10 mins
15	A population based analysis on various epidemiological and clinical aspects of GBS.	Dr. Athar Iqbal Prof. Athar Javed (KEMU, LHR)	10 mins
16	ADEM, diagnostic dilemma, a tertiary care hospital experience	Rajesh Kumar <sup>1</sup> , Hazim brohi <sup>2</sup> , Bushra Rehan <sup>3</sup> , Syed Ijlal Ahmed <sup>4</sup> (LNH, KHI)	10 mins
17	People with acute stroke who received Occupational Therapy Sessions throughout their hospital stay at LNH, Neurology ward proved more likely to be functional in their self-care and motivated at the time of discharge.	Neelum Zehra Bukhari, Bakhtawar Saleem, Dr. Naveeduddin (LNH, KHI)	10 mins

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## DAY 3 27th March Sunday

12:10-13:30 80 mins Scientific Session 8

Chair: Prof. Naeem Kasuri

Co-Chair: Dr. Bashir Soomro

12:10-12:30	A road map for Developing Stroke Rehabilitation Guidelines in Pakistan	Dr. Farooq Rathore (CMH, LHR)	20 mins
12:30-12:50	Rehabilitation in Parkinson's Disease	Dr. Uzma Aftab (MH, RWP)	20 mins
12:50-13:10	Neuroprosthesis	Ms. Nida Mirza (NUST, ISB)	20 mins
13:10-13:30	Role of Orthotics in the management of Neurological Disorders	Dr. Sarah Razaq (MH, Kamra)	20 mins
End of Scientific Session & Break			
13:30-14:10	Zuhur Prayers and Lunch		
14:10-14:30	Best Presentation Awards & Closing Remarks		

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## POSTER PRESENTATIONS

1.	Hyperhomocysteinemia : An Independent Risk Factor For Vascular Disease	Dr. Mehwish Butt, Dr. Sidra Jazil Faruqi (Civil, KHI)
2.	Juvenile Onset Alexander's Disease: Case Report Including	Dr. Sumera Rafat Umer (DUHS, KHI)
3.	Pathogonomic Radiological Findings Neurological Consequences of Electrical Injury	Dr. Sidra Jazil Faruqi, Dr. Mohammad Amir Umer (DUHS, KHI)
4.	A Case of Central Pontine Myelinolysis In Normonatremic Patient With Renal Failure	Dr. Ramla Nayaib Hashmi, Dr. Ummul Kiram, Dr. Tooba Asad, Dr. Kiran Marvi (LNH, KHI)
5.	A Case Report of Ischemic Stroke in Patient With Relapse of Takayasu Arteritis	Dr. Ummul kiram, Dr. Ramla Nayaib Hashmi (LNH, KHI)
6.	Lance Adam Syndrome: A Case Report	Dr. Ramla Nayaib Hashmi, Dr. Ummul Kiram, Dr. Chandar Parkash (LNH, KHI)
7.	Acute proximal motor neuropathy triggered by anti-tuberculous therapy- A case of a missed diagnosis of acute intermittent porphyria and review of literature	Dr. Masood Uz Zaman, Dr. Sara Khan (AKU, KHI)
8.	Progressive multifocal leukoencephalopathy –unexpected and rare outcome!	Dr. Muhammad Irfan (DUHS, KHI)
9.	Spectrum of Acute Flaccid Paralysis in Children	Shaila Ali, Zia-ur-Rehman, Tipu Sultan (CH, LHR)
10.	Motor Neuron Disease Presenting with Fatiguability – A Case Report	Dr. Zainab Saleem (DUHS, CIVIL, KHI)
11.	Acute Motor Axonal Neuropathy with Acute Lymphoblastic Leukemia	Dr. Uzma Aftab, Dr. Khalil Ahmad, Dr. Tariq Ghafoor Combined Military Hospital Rawalpindi
12.	Hypoparathyroidism - A Rare Mimicker of Motor Neuron Disease.	Haris Hakeem Masood Uz Zaman, Sara Khan (MD, DABPN) Aga Khan University Hospital, Karachi
13.	A Case of Joubert Syndrome in Adult with Cognitive Impairment	Dr. Ummul Kiram, Dr. Ramla Nayaib Hashmi Post Graduate Trainees FCPS PART II Neurology, Department of Neurology. Liaquat National Hospital Karachi, Pakistan
14.	Efficacy in performance component by applying conventional physical treatment versus combination of conventional treatment, Activities of Daily Living and social mode of therapy on cerebral palsy hemiplegic children.	Bakhtawar Saleem, Neelum Zehra, Naveed uddin at Dow Institute of Physical Medicine & Rehabilitation

# 23<sup>rd</sup> NATIONAL NEUROLOGY CONFERENCE

25-27 MARCH 2016 (Ramada Hotel, Islamabad)

PAKISTAN  
INSTITUTE OF  
MEDICAL SCIENCES  
ISLAMABAD

## POSTER PRESENTATIONS

15.	Impact of Parenting Style in Behavior Development of Children	Sarah Jehangir <sup>1</sup> , Tahmeena.T.Latifi <sup>1</sup> , Sumera Azam <sup>1</sup> , Naveedud Din Ahmed <sup>2</sup> , A. Malik <sup>3</sup> (LNH, KHI) Neurorehabilitation Unit <sup>1</sup> , Department of Neurology <sup>2</sup> , Liaquat National Hospital, Karachi, Neuro Clinic & Falij Care <sup>3</sup> , Karachi, Pakistan.
16.	Type of Customers in Health Care	Sumera Azam <sup>1</sup> , Tahmeena.T.Latifi <sup>1</sup> , Naveed ud Din Ahmed <sup>2</sup> , A. Malik <sup>3</sup> Neurorehabilitation Unit <sup>1</sup> , Department of Neurology <sup>2</sup> , Liaquat National Hospital, Karachi, Neuro Clinic & Falij Care <sup>3</sup> , Karachi, Pakistan.
17.	Technology Overload: Patterns of Language in Children with Language Delay	Tahmeena.T.Latifi <sup>1</sup> , Sumera Azam <sup>1</sup> , Naveedud Din Ahmed <sup>2</sup> , A.Malik <sup>3</sup> Neurorehabilitation Unit <sup>1</sup> , Department of Neurology <sup>2</sup> , Liaquat National Hospital, Karachi, Neuro Clinic & Falij Care <sup>3</sup> , Karachi, Pakistan.
18.	“ Anti-NMDA receptor encephalitis: A rare immunological diagnosis“	Ahmed Shah Bukhari <sup>1</sup> , Salman Mansoor <sup>2</sup> , Nabeel Muzaffar Syed <sup>2</sup> , M.A mjad <sup>3</sup> , Tahir Aziz <sup>4</sup> , Reaseach Associate Department of Neurology Shifa International Hospital
19.	Duration of Diabetes Mellitus and Hand manifestation	Hazim Brohi <sup>1</sup> , Rajesh Kumar <sup>2</sup> , Aqiba Surfaraz <sup>3</sup> , Usman <sup>4</sup> , Syed Ijlal Ahmed <sup>5</sup>
20.	Hyperkalemia due to Spironolactone associated with Rhabdomyolysis and Lower Limb weakness	Quratulain Panhwar
21.	An Overlooked Cause of Dementia	Shazma Khan <sup>1</sup> , Mughis Ahmed Khan Sheerani <sup>2</sup>
22.	Status epilepticus in adults: 9 year experience from a tertiary care hospital of Karachi.	Hazim Brohi, Rajesh Kumar, Syed Ijlal Ahmed, Shoaib Abrar, Muhammad Sheeraz
23.	Role of electrophysiology in the diagnosis of meralgiaprosthetica; Or Not all the thigh pain is meralgiaprosthetica (The electrophysiology has important role in the diagnosis)	Hazim Brohi, Rajesh Kumar, Naveed uddin Ahmed, Syed Ijlal Ahmed, Musarrat Shaheen, Muhammad Sheeraz

# 23RD NATIONAL NEUROLOGY CONFERENCE

## 25-27, MARCH 2016 (ISLAMABAD)

### NEUROMYELITIS OPTICA AND NEUROMYELITIS OPTICA- IgG SEROPOSITIVITY IN SAUDIS WITH DEMYELINATING DISEASES OF THE CENTRAL NERVOUS SYSTEM

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#### BACKGROUND AND OBJECTIVE

Neuromyelitis optica (NMO) shares certain features with multiple sclerosis (MS). Similar phenotypes, wide spectrum and the differential prevalence of NMO among ethnic backgrounds pose diagnostic challenges. NMO-IgG antibodies are specific biomarker for NMO and facilitate its differentiation from other demyelinating diseases. This study aimed to assess the frequency of NMO and NMO-IgG seropositivity in Saudi patients with demyelinating diseases of the central nervous system.

#### METHODS

One hundred and four patients from neurology database at King Abdulaziz Medical City, Riyadh underwent clinical and laboratory examination, neuroimaging and NMO-IgG antibodies screening. Results: The mean age at presentation was 32 ( $\pm 9$ ) years and there was an excess of females (female:male – 3:1). The mean duration of illness was 4.6 ( $\pm 3.2$ ) years. During the illness, 48.1% of patients had clinical evidence of spinal cord involvement, 29.8% had optic neuritis and 14.4% had both features. A large majority (75.8%) of brain lesions fulfilled MRI criteria for MS and 17% had lesions extending over  $\geq 3$  vertebral segments. NMO-IgG antibodies were present in only one patient – a frequency of 0.96% in our study cohort.

#### CONCLUSION

Prevalence of NMO and NMO-IgG seropositivity is rare in Saudis with demyelinating diseases of the central nervous system. Hence, routine NMO-IgG testing is likely to have a low diagnostic yield.

#### CLINICAL PROFILES, MANAGEMENT AND OUTCOME OF MYASTHENIC CRISIS IN A TERTIARY CARE CENTER IN KARACHI, PAKISTAN.

Dr. Sara Khan, Dr. Dureshahwar Kanwar FCPS, Dr. Sadia Nishat FCPS, Aga Khan University Hospital

Dr. Sara Khan MD; Assistant Professor, Department of Medicine, Aga Khan University Hospital Stadium Road

#### BACKGROUND

Myasthenic Crisis (MC) is a complication of Myasthenia Gravis (MG) characterized by worsening muscle weakness, resulting in respiratory failure that requires intubation and mechanical ventilation. It is frequently seen in known MG patients or occasionally seen as a first presentation of disease.

#### OBJECTIVE

To determine the clinical profiles, management and outcome of MC in patients presenting to a tertiary care hospital in Karachi, Pakistan.

#### METHODS

Forty cases of MC were retrospectively studied between 1999 and 2014. Demographics, clinical presentation, hospital course, management and outcomes were reviewed. Ventilatory support for respiratory muscle or bulbar weakness was taken as crisis identification.

#### RESULTS

Median age at presentation of MC was 50 years with 24 males and 16 females. Out of the total 40 patients with MC; Generalized onset was seen in 28 (70%) and isolated bulbar symptoms in 12 (30%) patients. Fifteen patients (37.5%) had MC as a first presentation.

#### CONCLUSION

MC in this advanced era of medicine is still a significant cause of prolonged hospitalization and increased mortality and morbidity. Respiratory support with intravenous immunoglobulin (IVIG), plasmapheresis or intravenous pulse steroids remain the mainstays of treatments. In a third world country with insufficient resources and limited access to specialist care, early recognition of MC by general practitioners may cause a significant decrease in the delay in diagnosis otherwise routinely seen. Patient education about avoidance of possible precipitating factors and recognizing early symptoms of MC should be part of standard care. Keywords: Myasthenic Crisis, Myasthenia Gravis, Intravenous immunoglobulin, plasma exchange.

#### TO DETERMINE THE FREQUENCY OF NONMOTOR SYMPTOMS IN PARKINSON'S DISEASE. TO COMPARE FREQUENCY OF NON-MOTOR SYMPTOMS IN MILD AND SEVERE DISEASE

Dr. Saira Saad, Pakistan Institute of Medical Sciences (PIMS)

## ABSTRACT

### BACKGROUND

Parkinson's disease is the second most common degenerative disease, which is classically considered as motor system disease. However there are many non-motor symptoms associated with it as well, which are largely under recognized and therefore under treated. non-motor symptoms should be explored by physicians in all Parkinson's disease patients by using various standard questionnaires available.

### OBJECTIVE

- The objective of this study was to determine the frequency of non-motor symptoms in patients of Parkinson's disease.
- To compare frequency of non-motor symptoms in mild and severe disease.

### OPERATIONAL DEFINITION

**Parkinson Disease:** A neuro-degenerative movement disorder characterized by tremor at rest, rigidity and bradykinesia, which is diagnosed clinically by the presence of two out of three above mentioned features.

**Mild Parkinson's Disease:** Stage 1 and 1.5 of Modified Hoehn and Yahr staging

**Severe Parkinson disease:** Stage 4 & 5 of Modified Hoehn and Yahr staging. For details please refer to attached annexure 1.

**Non-motor Symptoms:** The symptoms besides motor symptoms in patients of Parkinson's Disease. These mainly consists of twelve psychiatry symptoms respiratory symptoms. Please refer to annexure 2.

### MATERIAL AND METHODS

**Study design:** This was a descriptive case series study.

**Duration of study:** The study duration was ten months after approval of synopsis.

**Sample size:** Eighty eight cases of Parkinson Disease. Sample size was calculated using WHO sample size calculator taking confidence level 95%, the population 35% absolute precision 10%.

**Sampling technique:** Consecutive (non-probability) sampling

**Setting:** Department of Neurology, Pakistan Institute of Medical Sciences, Islamabad.

### PATIENT SELECTION

**Inclusion criteria:** (1) All male and female patients with Parkinson Disease.

**Exclusion criteria:** (1) Patients taking Antihypertensive, Anti-cholinergic and Antidiabetic medications.

(2) Diagnosed case of brain tumors, hydrocephalous or spinal cord compression.

### DATA COLLECTION PROCEDURE

Permission was sought from the hospital ethical committee for carrying out the study. Patients fulfilling the inclusion criteria were included in the study. Informed consent was taken from all the patients. Data was collected through a proforma (Annex A). Demographic characteristics were recorded. Parkinson's disease was defined clinically on the basis of tremor at rest, rigidity and bradykinesia. NMS-Q was filled by the patient or the caretaker. The stage of the disease was graded according to modified Hoehn & Yahr scale.

### DATA ANALYSIS

Data was analyzed through SPSS version 12. The numerical data (age) was expressed as mean, and standard deviation (SD). The categorical (gender and NMS) data was expressed as frequency and percentages. Chi square was used to compare the frequency of NMS in mild and severe disease. A p-value less than 0.05 was considered significant.

### RESULTS

In this study a total of 95 patients having Parkinson's disease were enrolled. The majority of patients were above 50 years of age with only 6 (6.8%) between 31 to 40 years and 10 (11.4%) between 41 and 50 years. The mean age of patients was 61.1 + 12.0 years ranging from 31 to 80 years. (Table 2)

In this study male gender was predominant with 62 (70.5%) proportion whereas remaining 26 (29.5%) were females. The male to female ratio was noted to be 2.4 : 1. (Table 3)

In this study the grading of Parkinson's disease was done according to Hoehn and Yahr scale. Out of total 88 cases, 52 (59.1%) were having grade 1 and 16 (18.2%) patients had grade 2 of the disease. Another 10 (11.4%) were in grade 3 whereas 10 (11.4%) cases had grade 4 (severe PD). (Table 4)

The genitourinary symptoms were recorded highest followed by psychiatrist symptoms in all patients while the overall frequency of non-motor symptoms was higher in severe Parkinsons disease compared to mild disease.(Table 5,6)

### CONCLUSION

The Parkinson's Disease is primarily known as neurodegenerative motor disease,. This study has shown high frequency of NMS occurs in Parkinson's disease. The neurodegeneration does not only affect the motor pathways but also the other parts of the brain resulting in varying spectrum of nonmotor symptoms. The high frequency of non-motor symptoms has highlighted the

fact that PD should just not be dealt as triad of symptoms of bradykinesia, tremors and rigidity. Rather a more holistic approach is needed in the management of PD. The frequency of non-motor symptoms was higher in severe PD. This outcome may be used as a tool by the physicians dealing with Parkinson's patients that they should keep a track of development of these symptoms and deal them in a timely manner.

#### KEY WORDS

Mild Parkinson Disease, Severe Parkinson's Disease, non-motor symptoms

#### TO COMPARE THE KNOWLEDGE, ATTITUDE, AND PRACTICE OF GUARDIANS OF EPILEPTIC PATIENTS VISITING OUT PATIENT DEPARTMENT OF TERTIARY CARE HOSPITAL(KAP Study)

Natasha Ghani, ShailaAli ,Faisal Zafar

Paediatric neurology outpatient department, The institute of Child Health and The Children Hospital Lahore.

#### INTRODUCTION

Epilepsy is one of the most common neurological illnesses worldwide. It is not only a disease but also has psychological problems including depression, anxiety and psychosis. An Epileptic patient becomes social stigma especially in developing countries due to socio cultural attitude, inadequate knowledge and wrong practices.

#### OBJECTIVE

To compare the knowledge, attitude and practice of guardians of epileptic patients.

#### METHODOLOGY

##### STUDY DESIGN

Cross sectional study

##### SETTING

Paediatric neurology outpatient department, The institute of Child Health and The Children Hospital Lahore.

##### RESULT

A survey of 150 guardians or parents of epileptic patients were questioned through a designed Performa on follow up visit at our OPD. The total duration of study was of 1 month i.e. from 1st January 2016 to 31st January 2016. Amongst them 38.2% were uneducated. Majority of the guardians (52.9%) were of the opinion that it is due to some neurological illness, (11.7%) believed that it is because of supernatural powers and the rest (17%) had no knowledge regarding the cause of epilepsy. Regarding practice during an episode of fit (58.8%) guardians assisted the patient to lie in proper position, (17.6%) started reciting Holy Verses, and while (8.8%) place something in mouth and (14.7%) don't do anything.

(70%) Guardians had favorable attitude towards epilepsy and antiepileptic medications.

#### CONCLUSION

A lot of people still believe in supernatural powers and there is lack of practice to handle the patient during such an attack so Adequate measures should be taken to improve the knowledge, attitude and practice of parents or guardians through lectures and media.

#### KEY WORD

KAP (knowledge, attitude ,practice), OPD (Outpatient department)

#### SPECTRUM OF GBS IN CHILDREN

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Preferred Mode of Presentation: Oral

#### ABSTRACT

##### INTRODUCTION

GBS is a post-infectious poly-neuropathy involving mainly motor but sometimes also sensory and autonomic nerves. This is an epidemiological report on seasonal & monthly distribution of GBS & differences in GBS incidence between male & female in Punjab, Pakistan.

##### OBJECTIVE

To determine the seasonal variation, age and gender differentiation in children with GBS.

##### STUDY DESIGN

Retrospective,observational study.

**Place and Duration of Study:** Department of Neurology, Children Hospital &the Institute of Child Health, Lahore form December 2014 to November 2015.

##### METHODS

We extracted data from multi centers retrospectively in a 1 year period (December 2014- November 2015). IN order to compare the frequency of GBS in different months & seasons we used the chi-square test.

##### RESULTS

There was male predominance with 52.11% (n=37). Highest no of cases (70.4%) were found in age group (11-18 Years) (n=50). Seasonal (P=0.01) and monthly (P=0.02) variation among GBS was observed throughout year with more prevalence in summer (49.29%) followed by spring (25.35%). Regional date of Punjab revealed highest no of cases 36.6% (n=26) in South Punjab followed by west Punjab 28.16% (n=20)

## CONCLUSION

Our study shows that there is significant monthly and seasonal variation in the admission rate of Patients with GBS in Punjab

## KEY WORD

GBS, epidemiology, seasonal variation, Punjab.

## NEURORADIOLOGY IN TUBERCULOUS MENINGITIS-DIAGNOSTIC SIGNIFICANCE and PROGNOSTIC VALUE.

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Department of Neurology, Pakistan Institute of Medical Sciences, Islamabad

## ABSTRACT

### BACKGROUND

Tuberculous meningitis (TBM) is the most common and belligerent form of CNS TB. Prompt definitive diagnosis of TBM is arduous due to tedious microbiological procedures.

### OBJECTIVES

This study was conducted to evaluate the neuroradiological findings in patients with TBM as a modality for early diagnoses and predicting prognosis.

### MATERIALS AND METHODS

A successive series of 100 patients diagnosed with TBM admitted to the PIMS neurology ward were studied between March 2013 and April 2014. Cranial imaging results were obtained by non-contrast enhanced CT brain (NECT) and MRI (magnetic resonance imaging) brain with contrast. MRC staging on admission and in-hospital mortality were recorded.

### RESULTS

The mean age was  $34.86 \pm 1.76$  years with a female preponderance (55%, 55 out of 100). On admission, 72% were in MRC stages II or III. The in-hospital mortality was 16%. NECT was obtained in all the patients and was abnormal in 67% of the patients with hydrocephalus (58%), edema cerebral (24%) and infarcts (5%) being the commonest findings. CT infarct had the highest mortality rate of 60%. MRI was obtained in 61% of the patients and was abnormal in 88.5% of these cases. Hydrocephalus (61%), tuberculomas (54%), leptomeningeal involvement (46%) and infarcts (13%) were the most frequent radiological signs on MRI. Mortality was significantly associated with infarcts but not with tuberculomas.

## CONCLUSION

Neuroimaging techniques are a handy tool in the early diagnosis of TBM. MRI is particularly helpful in defining findings such as infarcts and tuberculomas and in

predicting mortality and morbidity.

## DEVELOPMENT OF DIABETES ASSOCIATED ALZHEIMER'S DISEASE MODEL IN BALB/C MICE

Meha Fatima Aftab, Shabbir Khan, Safina Ghaffar, Munazza Zohaer, Darakhshan Jabeen Haleem, Ayaz Ahmed, Rizwana S. Waraich.  
Dr. Panjwani Center for Molecular Medicine and Drug Research, ICCBS, University of Karachi, 75270, Karachi, Pakistan.

Dementia or memory loss is one of the hallmarks of Alzheimer's disease (AD). This memory loss is due to formation of amyloid beta plaques and neurofibrillary tangles present in the AD brains. Diabetes mellitus is one of the causes of Alzheimer's disease. Glycation frequently occurs in diabetes and advanced glycation end products are commonly found in the neurofibrillary tangles and plaques. Alzheimer's disease has been called type III diabetes since insulin resistance in brain has been suggested in the pathophysiology of Alzheimer's disease. Gene knockout models have been developed to study pathogenic mechanisms of Alzheimer's disease. However, no animal model has been developed yet to study diabetes related Alzheimer's disease. We have developed an ageing and diabetic mice model of Alzheimer's disease. Our model has shown cognitive deficits and histological findings relevant to Alzheimer's disease. Hence, this model can be used for the pre-clinical trials to study the effects of synthetic drugs and natural products for treatment of Alzheimer's disease.

## ROLE OF MEMANTINE AS PROPHYLACTIC AGENT IN PATIENTS WITH MIGRAINE

Muhammad Adnan Aslam, Mohammed wasay, Ahsan Numan

## ABSTRACT

### INTRODUCTION

Migraine is a common neurological disorder being experienced by about 3% of world's population. There are many treatment drugs available for migraine but still a continuous search for better drug is going on. Memantine is an NMDA antagonist that has been introduced for treatment of migraine. Current study was carried out to look for the response of the Memantine for migraine in our society.

### MATERIAL AND METHODS

This was a prospective observational trial conducted at Neurology department, Services Hospital Lahore over a period of 1 year, from January, 2015 to December, 2015. A total of 55 patients were included in the study and they were observed for 1) Headache frequency per month; 2) Headache severity as per pain rating scale (1-10 as mild to most severe); 3) Level of distress as per distress rating scale (1-10, as mild to most severe distress); and hindrance of activity of daily living as per Migraine Disability Assessment Scale (MIDAS). These

study variables were noted both before the start of treatment. Memantine was started to all of the patients and after 3 months of treatment all patients were re-evaluated for same variable. Also side effects of the drug were noted in the study.

## RESULTS

Of these 55 patients, 43 patients (78.2%) were female, while 12 were male (21.8%). The age of the patients ranged from 18 to 63 years. The mean age calculated was  $43 \pm 11.42$  years. Of all the patients included in the study, 21 patients (38.2%) had migraine with aura, while 34 patients (61.8%) had migraine without aura. The headache frequency of the patients per month significantly reduced after 2 months treatment. Also in 76.3% of patients, more than 50% reduction in the frequency of headache was noted after the treatment. The mean MIDAS score before start of the treatment was  $81.8 \pm 14.76$ . After 3 months of treatment with Memantine, the MIDAS score found was  $15.52 \pm 2.84$  (P value =  $<0.05$ ). Also we found that minimal side effects of the drug were encountered by the patients in our study.

## CONCLUSION

On the basis of this study, we conclude that Memantine is a safe drug and can be used for migraine management. However still further randomized trials with larger sample size are being recommended.

## CLINICAL AUDIT OF TISSUE PLASMINOGEN ACTIVATOR (R-TPA) RECIPIENTS IN ISCHEMIC STROKE PATIENTS PRESENTING AT A TERTIARY CARE HOSPITAL, IN ISLAMABAD PAKISTAN.

Salman Mansoor<sup>1</sup>, Raja Farhat Shoaib<sup>2</sup>, Faleha Zafar<sup>1</sup>, Ahmed Shah Bukhari<sup>3</sup>, Nabeel Muzaffar Syed<sup>1</sup>, Memoona Nasir<sup>1</sup>, Maimoona Siddiqui<sup>4</sup>, Muhammad Azhar Saeed<sup>4</sup>, Waseem Tariq Malik<sup>4</sup>, Muhammad Amjad<sup>4</sup>

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<sup>4</sup> Consultant Neurologist, Department of Neurology, Shifa International Hospital Islamabad

## ABSTRACT

### OBJECTIVE

To observe the quality parameters in acute ischemic stroke management for those who received r-tPa including door to needle time, arrival to neuroimaging time.

### METHODOLOGY

This prospective observational study is from the ongoing r-tPa stroke registry. This is the 1 year data of 13 patients with stroke who received intravenous r-tPa in the Department of Neurology, Shifa International hospital Islamabad from 13th January 2015 to 21st February 2016.

The data was entered and analyzed in SPSS V 20 software.

## RESULTS

In this case series of 13 ischemic stroke patients who received tissue plasminogen activator there were 6 males (46.2%) and 7 females (53.8%). The mean age at presentation was 65 years with a median of 68 years. The age range varied from a minimum of 42 years to a maximum of 82 years. There were 8 patients who had left middle cerebral artery (MCA) stroke while 5 had right MCA stroke. The mean time to stroke symptoms onset before arrival in emergency department was 76 minutes and the median for it was 80 minutes. The mean time to CT scan brain plain was 9 minutes the median time to scan was also 9 minutes. The door to needle time for administration of TPA was 43 minutes and median of 43 minutes. The mean for NIHSS at presentation was 14.85 with a median of 15. The NIHSS was checked subsequently at 2 hour and 24 hours. The mean for NIHSS 2 hours after receiving TPA was 11.46 with median 11.00 and at 24 hours was 8.46 with a median of 7.00. These differences in mean values were found statistically significant on the paired sample t-test with p-values less than 0.05. There was no patient who had intracerebral hemorrhage at 24 hours or later after receiving r-tPa.

## CONCLUSION

This audit demonstrates that our stroke service at Shifa international hospital Islamabad is delivering r-tPa to all eligible patients within 45 minutes that falls in SITS criteria, but mean onset to arrival time is 76 minutes that needs further improvisation by an effective public health campaigns, efficient pre-hospital services and proper referrals from other hospitals.

## KEY WORDS

Alteplase, TPA, Ischemic Stroke, Audit

## RESOURCE UTILIZATION FOR PATIENTS WITH INTRACEREBRAL HEMORRHAGE TRANSFERRED TO A COMPREHENSIVE STROKE CENTER AT BAYLOR UNIVERSITY MEDICAL CENTER

Mahdi Haq, Osman Mir, AnwarulHaq  
Peshawar Medical College, Peshawar, Pakistan,  
Baylor University Medical Center, Dallas, USA.

### OBJECTIVE

To study outcome differences in transferred versus directly admitted ICH patients.

### BACKGROUND

As a comprehensive stroke center (CSC), we accept transfer patients with intracerebral hemorrhage (ICH) in our region. CSC guidelines mandate receipt of patients with ICH for higher level of care. We assessed the demographics, clinical severity and discharge disposition

among transferred patients compared to those directly arriving at our center

## METHODS

From our stroke registry, we reviewed all patients with primary ICH transferred and those directly arriving to our CSC from 5/14-5/15. Primary outcome was discharge disposition.

## RESULTS

Among the 162 patients, 73 (45%) were transfers. Transferred patients were 72.6% white, 45% female with mean age of 63 had similar median Glasgow Coma Scale scores, and lower ICH scores (not statistically significant) than directly admitted patients who were 44% black with mean age of 60. 40% of transferred patients went home and 25% of them died as compared to 29% and 33% of directly admitted patients. However, this was not statistically significant. After adjusting for age and race the proportion of patient sent home from hospital is higher for transfer versus direct admits, however, the effect was not present after adjusting for ICH score. Transfer patients also tended to have a lower LOS [LOS - median (Q1, Q3) 5 (2, 11) vs 6 (3, 13)].

## CONCLUSIONS

Contrary to our expectation transferred patients show a trend towards better outcomes compared to directly admitted patients. They had lower ICH scores, which probably explains this better outcome. Our results raised the need to analyze cost, benefits and resource utilization off transferring patients with milder ICH.

## ETIOLOGY OF STROKE IN YOUNG PAKISTANI ADULTS; RESULTS OF A SINGLE CENTER STUDY

*Dr. Uzma Jamil*

*Department of Neurology, Pakistan Institute of Medical Sciences*

## ABSTRACT

### OBJECTIVES

The aim of this study was to determine the demographic profile and incidence of young stroke at a tertiary care setup in Islamabad, Pakistan.

### MATERIALS AND METHODS

This single centre, cross sectional study was conducted by recruiting 119 patients of either gender,  $\geq 12$  and  $\leq 45$  years of age with stroke and receiving care at Pakistan Institute of Medical Sciences, Islamabad.

### RESULTS

Total number of young strokes was 119 out of a total of 322 strokes i-e-, 36.9 %; 1/3rd strokes were in  $\leq 45$  years of age. Ischemic arterial strokes were 47 % (56 out of 119) while venous ischemic strokes were 11.7 % (14 out of 119) and almost all in females (13 out of 14; 92.8 %). Infective

causes of central nervous system were identified in 24.3 % (29 out of 119). 49 patients (41.1 %) had hemorrhagic strokes. Major individual risk factors for stroke included hypertension identified in 35 (29.4 %) followed by diabetes mellitus in 8 (6.7 %) patients. Amongst infectious causes, CNS tuberculosis was the major infection associated with young stroke i-e-, 89.6 % (26 out of 29).

## CONCLUSION

Nearly 1/3rd of strokes in our population are in young. While risk factors in general for stroke stand true for young stroke as well namely hypertension and diabetes, CNS infections are a major cause of young stroke in Pakistan; particularly CNS TB. While majority of strokes in elderly are ischemic, strokes in young comparatively are almost equally divided between ischemia and hemorrhage i-e-, 1.4:1. 1/5th of these ischemic strokes are due to cerebral venous thrombosis. National level guidelines should therefore adopt different strategies for primary and secondary prevention, laboratory work up and imaging, and treatment of stroke in young.

## KEY WORDS

young stroke; ischemic; hemorrhagic; arterial; venous; infectious; risk factors, family history.

## 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, Lahore, Pakistan*

## ABSTRACT

### 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.

## BURDEN OF HEADACHES IN A NEUROLOGY OUTPATIENT CLINIC

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## ABSTRACT

### BACKGROUND

Globally Headache disorders are a major public health problem with an overall prevalence of 46%. Migraine and Tension type headaches are the two most common causes. However, headache has not been sufficiently studied as a cause of disability in the developing world. Large studies on prevalence of headaches have not been conducted. The aim of this study is to calculate the burden of patients coming with headache to a Neurology clinic.

### METHODS

Medical records of 5040 patients who had been entered in Neurology outpatient Diagnostic database were reviewed. Age, gender, demographic details and type of headaches were recorded. Results were analysed using SPSS v 20 and Chi square test was applied for statistical analysis.

### RESULTS

Out of 5040 patients 946 patients (18%) presented with complaint of headaches. 72.8% of all headache patients were women. 82.8% of patient were between 19-60 years of age. Migraine was the most type of headache (63%) followed by tension-type headache (26.8%), Cranial neuralgias and central causes of facial pain (2.7%), and Cluster headache and other trigeminal autonomic cephalgias (1.8%). Headache was found to be more common in females (p = 0.001)

## DISCUSSION AND CONCLUSIONS

Headache caused 18 percent of all visits to Neurology OPD and Migraines accounted for 63% of all headache visits. Significant sex differences exist in prevalence of migraine and other headache disorders. Frequency of Migraines was more than Tension type headaches in our study which was also reported by Sonawala et al from Pakistan. However Western data reports higher prevalence of Tension type headaches than Migraine. This may be due to a referral bias in tertiary care private hospitals.

## FREQUENCY AND CAUSES OF LONGITUDINALLY EXTENSIVE TRANSVERSE MYELITIS IN PATIENTS PRESENTING TO TERTIARY CARE CENTRE.

Dr. Safia Bano, Prof. Muhammad Athar Javed

King Edward Medical University, Mayo Hospital Lahore

## ABSTRACT

Frequency and causes of longitudinally extensive transverse myelitis in patients presenting to tertiary care Centre

## OBJECTIVE

The objective of the study was to Measure the frequency of longitudinally extensive transverse myelitis and Causes of longitudinally extensive transverse myelitis

## METHOD

An observational, Retrospective review, cross sectional study was conducted at neurology department Mayo hospital Lahore from 1st January 2015 to 31st December 2015. A total of 16 patients were included from inpatient with history of weakness of lower limbs/all four limbs with or without visual disturbances. Neuroimaging (MRI brain and spinal cord) was done which showed LETM

## RESULTS

we had total 16 patients of LETM, analyzed on SPSS, 20; epidemiological data showed age distribution b/w 15-50 years. they were predominantly females (62.5% versus 37.5% male). all of the patients had LETM 100%. with majority has normal MRI brain (93.8% versus 6.3% abnormal). Most common cause of LETM was NMO 93.8% versus 6.3% MS

## CONCLUSION

LETM is common presentation of NMO; since we lack the facilities for definite diagnosis of NMO. so it remains underdiagnosed in our clinical practice. To prevent further attacks/progression of disease, it is recommended that patients who are presenting with LETM/Optic neuritis should be put on long term immunosuppressant in routine practice

## A POPULATION BASED ANALYSIS ON VARIOUS EPIDEMIOLOGICAL AND CLINICAL ASPECTS OF GBS

Dr. Athar Iqbal, Prof. Athar Javed

King Edward Medical University, Mayo Hospital Lahore

## ABSTRACT

### OBJECTIVE

To present a population based analysis of the epidemiological, clinical, laboratory and electrophysiological features of patients with GBS.

### METHOD

An observational cross sectional study was conducted at the department of Neurology Mayo Hospital Lahore between 2012 and 2015. The sampling was restricted to the inpatients of GBS and a total of 120 patients were enrolled who were suspected to have GBS on clinical grounds and later confirmed through laboratory and electrophysiological evidence. The following demographic, epidemiological, clinical, laboratory and electrophysiological variants were recorded; age, gender, weakness pattern, season, bulbar and autonomic dysfunction, ventilator requirement and mortality were analyzed. Further CSF analysis and electrophysiological data was analyzed and requirement for plasmapheresis assessed. The disability scale at presentation and on discharged based of Huger's scale was documented.

### RESULT

We had a total 120 patients of GBS analyzed with ages distributed between 10 years and above 50 years. They were predominant (70%) male with majority with AIDP (70.8%) subtype. A (35.8%) presented with a preceding suspected viral illness. 18.3% of our patients were having bilateral facial nerve involvement with 21.7% showing bulbar symptoms. Majority of the patients were having symmetrical upper and lower limb involvement. Autonomic dysfunction was noted in 25% of the patients however 11.7% of the patients required ventilator. Further correlations based on CSF analysis and patterns of disability outcomes with and without plasmapheresis were analyzed during the period of hospitalization.

### CONCLUSION

The disability leading to GBS remains a financial and psychological burden and measures should be taken to ensure early diagnosis and initiation of treatment on suspected cases of GBS. In our patients mortality is dominantly related to ventilator associated complications therefore efficient intensive care can play a key role in reducing the mortality.

### ADEM, DIAGNOSTIC DILEMMA, A TERTIARY CARE HOSPITAL EXPERIENCE

*Rajesh kumar1, Hazim brohi2, Bushrarehan3 ,syedijlal ahmed4*

### ABSTRACT

Acute disseminated encephalomyelitis (ADEM) is an uncommon inflammatory demyelinating disease of the central nervous system that usually occurs following a viral infection

or vaccination, bacterial or parasitic infection, or even spontaneously. The morbidity is more than mortality rate which may be 5%. ADEM is a monophasic; poly symptomatic disorder but it may present with various combinations of motor, sensory, visual and cognitive symptoms. Some case reports of ADEM presented as psychiatric disorders primarily as confusion psychosis and at times dissociative disorder. At times, the diagnosis becomes a dilemma due to multifaceted picture. Due to confusion physician may go to extreme range of tests with no specific conclusion. Debates regarding exact diagnosis have always been there. We searched the internet to look for reports from our area in the world. Reports regarding ADEM are lacking from our country. The aim of our study was to look for the presenting features of the disease and the path to final diagnosis.

### METHODS

We reviewed all patients presenting with neurological deficit, who were finally labeled as ADEM from Jan 2014 to Dec 2014. Inclusion criteria were that the disease had to be monophasic and the imaging findings should correlate with demyelinating features. All patients not fulfilling the above criteria were excluded from the.

### RESULTS

Out of 12 patients 8 patients fulfilled the criteria. All 8 had diverse clinical features. All responded well to steroid therapy. All patient had undergone extensive investigations. Radiological findings were diverse with cortical and subcortical involvement.

### CONCLUSION

Debate has been going on to define and differentiate between the different demyelinating diseases. But somehow they all share a common entity that predominantly demyelinating and response to steroids/plasmapheresis/IV Immunoglobulin therapy. It is only a high index of suspicion that will help to reach the diagnosis.

### PEOPLE WITH ACUTE STROKE WHO RECEIVED OCCUPATIONAL THERAPY SESSIONS THROUGHOUT THEIR HOSPITAL STAY AT LNH, NEUROLOGY WARD PROVED MORE LIKELY TO BE FUNCTIONAL IN THEIR SELF CARE AND MOTIVATED AT THE TIME OF DISCHARGE

*Neelum Zehra Bukhari, Bakhtawar Saleem, Dr. Naveed uddin*

### OBJECTIVE

To emphasize occupational therapy interventions benefits as part of inpatient facilities for acute stroke patients.

### INTRODUCTION

Among people who have experienced a stroke, 55% to 75% have a paretic arm that causes motor impairments and experience difficulty in incorporating the affected hand into their activities. Mirror therapy (MT) may be a suitable alternative because of its low cost and simplicity. The movement of the intact limb gives the patient the illusion

of which inputs are perceived through the affected limb behind the mirror. Substantial evidence has demonstrated the immediate efficacy of MT on motor recovery in people with stroke. In this intervention based study Mirror therapy effects has been found out for paretic arm retraining.

## METHOD & MATERIAL

**Design:** Randomized controlled trial. **Data Source:** Neurology Inpatient ward and Stroke Unit, Liaquat National Hospital. **Participants:** 25 Ischemic and 25 hemorrhagic stroke patients, enrolled after 24 hours of onset. **Interventions:** The patients received bedside self-care retraining of 5 components according to FIM hierarchy, leaflets of stroke awareness, stroke support group and Home modification plan to care givers were all the part of interventions. The intensity of interventions for both types of stroke was selfcare retraining 5 days twice per day each component. Leaflets were provided on bedside, Stroke support group and Home modification plans were given to attendants each day. **Main Outcome Measurements:** Initial Functional Restoration Assessment (IFRA), Functional Independence Measure (FIM).

## RESULTS

Both types of stroke resulted with hope to recover and independent to minimize the burden of dependency.

## CONCLUSIONS

The application of occupational therapy interventions in acute stroke proved to be beneficial for both types of stroke in self care and motivation to be independent in their daily routine cores.

## KEYWORDS

Acute Stroke, Occupational Therapy with Acute Stroke, Functional Independence Measures, Ischemic Stroke, Hemorrhagic Stroke, Self-care.

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## TRAINING PROGRAM FOR PRIMARY PHYSICIANS IN THE DIAGNOSIS AND MANAGEMENT OF STROKE

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## ABSTRACT

Background: Pakistan is the sixth most populous country in the world, with an estimated population of 180 million. In a population dense country like Pakistan, an estimated 4.8% may be suffering from stroke; this translates to 8.6

million individuals, compared to 700,000 annually in the United States. It is felt that a proper training of the primary physician in the diagnosis and management of stroke would be the best approach in improving the standards of stroke management & rehabilitation.

## OBJECTIVE

To train and certify 1,000 doctors across Pakistan for stroke primary prevention & secondary care.

## METHODS

The Pakistan Stroke Society (PSS) with the endorsement of World Stroke Society (WSO) & collaboration with Pakistan Society of Neurology (PSN) & Neurology Awareness & Research Foundation (NARF) started to train practicing doctors, mainly primary physicians, across the country by adopting the following methods:

1. The course would be conducted by trained neurologists, especially those who have an interest in stroke.
2. These will form the core group. The core group would first meet to discuss and finalize the topics for the presentation and the formulation of a standardized course material, the relevant MCQs and other details.
3. Members of the core group would then go to the various cities and towns of the country (provinces wise cities identified) for these presentations, and they may be assisted by the neurologists/physicians in their area, whose involvement will arouse interest and a sense of participation. Their presentations, of course, would be based on the core course material.
4. There would also be a pre course and a post course assessment of their knowledge.
5. We proposed to have about 24 such day long courses in the 24 different cities of the country. Each course would be expected to be attended by around 50 participants.

## RESULTS

We developed curriculum, did the master trainer's workshop trained 25 master trainers and revised the curriculum twice according to the master's trainers and quarterly review of the workshops. Since August 2015 till Feb. 2016 we did eight workshops and trained 400 physicians.

## CONCLUSION

The primary physician remains the backbone of health care management in Pakistan. Hence a proper training of the primary physician in the diagnosis and management of stroke would be the best approach in improving the standards of stroke management & rehabilitation in Pakistan.

## KEY WORDS

Stroke, Training, Primary Physicians

# 23RD NATIONAL NEUROLOGY CONFERENCE

## 25-27, MARCH 2016 (ISLAMABAD)

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### **HYPERHOMOCYSTEINEMIA: AN INDEPENDENT RISK FACTOR FOR VASCULAR DISEASE**

*Dr. Mehwish Butt*

*Dr. Sidra Jazil Faruqi*

*Department of Neurology, Civil Hospital, Karachi*

#### **ABSTRACT**

Hyperhomocysteinaemia(HH) refers to a medical condition characterized by abnormally high level of homocysteine in the blood, conventionally described as above 15  $\mu\text{mol/L}$ . Internationally, the reported incidence varies between 1 in 50,000 and 1 in 200,000. Data from Mudd et al suggest that starting at around age 20 years, these patients have an increasing likelihood of suffering a thromboembolic event. Neurologic involvement is a frequent occurrence and may often be the presenting feature of the disease process including Premature occlusive vascular diseases, Psychotic diseases, Early dementia, Mental retardation and blindness. Total homocysteine levels are also associated with severe leukoaraiosis independent of other risk factors for cerebrovascular disease. We report a case of A 27 year male with no previously known co-morbid presented to the OPD with complains of Progressive weakness of lower limbs, Behavioral changes and sudden Loss of vision in both eyes. On examination, he had GCS of 15/15 with behavioral abnormality. No light perception in either eye, increased tone in all four limbs with hyperreflexia. Decreased power in lower limbs with equivocal plantars. His baseline investigations at admission were normal. ECG and chest x-ray were also unremarkable. Workup for young stroke was done extensively, Non specific inflammatory markers such as ESR and CRP were elevated with isolated hyperhomocystenemia. MRI Brain With contrast was consistent with extensive white matter disease. The patient was started on anti platelets with B12 and folic acid supplementation, showed subsequent clinical improvement and discharged home.

### **JUVENILE ONSET ALEXANDER'S DISEASE: CASE REPORT INCLUDING PATHOGONOMIC RADIOLOGICAL FINDINGS**

*Dr. Sumera Rafat Umer*

*Dow University of Health Sciences, Civil Hospital Karachi*

#### **ABSTRACT**

Alexander's disease is a rare autosomal dominant disease classified under leukodystrophies. It is characterized by dysmyelination leading to spasticity, dementia, seizures. We report a case of Alexander's disease in a 14 year old

boy who had juvenile onset disease and had characteristic MRI findings. Although the patient's histologic findings didn't show Rosenthal fibers but his imaging findings fulfilled radiological diagnostic criteria. He initially responded to steroids and antiepileptic drugs and got better but as it is a progressive condition, he then deteriorated. We have described this case to discuss Alexander's disease.

### **NEUROLOGICAL CONSEQUENCES OF ELECTRICAL INJURY**

*Dr. Sidra Jazil Faruqi*

*Dr. Mohammad Amir Umer*

*Dow University of Health Sciences*

#### **ABSTRACT**

Electrical injury is a unique injury with devastating consequences both at the site of injury and at areas remote from it. Its effects may present acutely or after several years. It usually presents with local burns and cardiac conduction defects. Common neurological manifestations are alteration of consciousness, amnesia, cerebral vascular lesions, seizures, myelopathy, peripheral neuropathy, deafness and mutism. Chronic sequelae include movement disorders or demyelination. Electrical injury accounts for 4% of all admissions to burns units in the USA and around 1000 fatalities annually. We present the case of a 17 year male who presented to the ER after suffering a high voltage electric shock and becoming unconscious. No head trauma, seizures or abnormal cardiac event occurred. Third degree burns covered 13% of his body. GCS was 4/15, neurological examination was unremarkable except for extensor plantars. All investigations at admission were unremarkable. CT Scan Brain Plain was repeated on the 10th day of admission and showed hypodense areas in bilateral cerebellar hemispheres, left temporal lobe and bilateral thalamic regions. During his admission, he underwent amputation of his right arm and was on ventilatory support for surgical complications. MRI Brain showed hyperintense lesions in the right cerebellum, left temporal lobe and bilateral thalamic regions. MRV Brain showed evidence of venous sinus thrombosis. EEG showed generalized seizure discharges. Anti-coagulants and anti-epileptics were started. He developed dystonia that responded to levodopa/carbidopa. MRI Brain was repeated after 45 days and showed almost complete resolution of all lesions. Patient achieved significant improvement in his motor functions before being discharged.

## A CASE OF CENTRAL PONTINE MYELINOLYSIS IN NORMONATREMIC PATIENT WITH RENAL FAILURE

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### ABSTRACT

Central pontine myelinolysis (CPM) also known as Osmotic Demyelination Syndrome (ODS) is associated with rapid correction of hyponatremia or fluid shifts, and is characterized by neurological involvement related to central portions of the pons without the evidence of vascular involvement. It can also involve other areas of the brain. Classically, this is associated with hyponatremia, but it can also occur in the conditions without the evidence of hyponatremia such as alcoholism, malnourishment, diabetes, hepatic failure, liver transplantation cirrhosis, chronic renal failure and malignancy. We report a case of a 65 years old female known case of osteoarthritis both knees Status post bilateral knee replacement 6 years and Lumbar spine Disc surgery 12 years back with history of chronic Diarrhea and malnutrition for 5 to 6 months for which she underwent investigations including blood and stool work up and endoscopy. There was no evidence of hyponatremia throughout her hospital course (serum sodium level remained more than 140 meq/L) She was under conservative treatment in periphery hospital for 1 week and was referred to our hospital in Emergency department with complaints of shortness of breath, drowsiness followed by loss of consciousness for 5 to 6 days. Baseline blood work up showed deranged renal parameter but no hyponatremia. MRI brain done 2 days before presentation to us showed hyperintense signals in centre of pons consistent with CPM. patient kept on conservative management with improvement of renal functions. Repeat MRI brain showed resolving signals in the centre of pons.

### A CASE REPORT OF ISCHEMIC STROKE IN PATIENT WITH RELAPSE OF TAKAYASU ARTERITIS

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### ABSTRACT

Takayasu's Arteritis (TA) is a rare, idiopathic chronic, inflammatory disease that primarily affects large blood vessels such as aorta and its branches. It is a systemic vasculitis whose clinical presentation varies from asymptomatic to serious neurovascular events. Neurologic involvement is a frequent occurrence and may often be the presenting feature of the disease process. Occlusion of vertebral or carotid arteries can cause ischemic stroke and patients may present with headache, syncope,

blurred vision, transient ischemic stroke and posterior reversible encephalopathy syndrome. The prevalence of ischemic stroke in patients with TA is found to be, depending on study, between 5% and 15%, especially at the onset of the disease and during the relapses. Takayasu's arteritis must be recognized as a potential cause of ischemic stroke in young females. However, few studies are currently available assessing stroke in Takayasu Arteritis. Literature data regarding ischemic stroke due to TA is sparse and consists mostly of case reports and case series. We report a case of 28 years old female admitted through emergency department in our hospital who was a known case of Takayasu arteritis for last 8 years which was diagnosed during work up for secondary hypertension in young patient. She was found to have renal artery stenosis diagnosed through CT angiography of Abdominal aorta. She underwent stent placement in renal artery 8 years back and was on steroids along with antihypertensive medication. She remained asymptomatic with controlled hypertension and was under regular follow up of Rheumatologist. She was up and about till presented to us with focal neurological deficit. Her presenting complaints were sudden onset right sided weakness and dysarthria. Stroke work up done extensively in this patient. Non specific inflammatory markers such as ESR and CRP were elevated. MRI BRAIN showed acute left basal ganglia infarction. MRA Aortogram was also done which was consistent with disease relapse. The echocardiogram was normal but carotid doppler study revealed a thrombus in left common carotid artery. During hospitalization, she was managed conservatively. Due to the relapse of Takayasu arteritis she was given high dose steroid pulse therapy followed by immunosuppressant showing improvement on subsequent days and was discharged.

### LANCE ADAM SYNDROME: A CASE REPORT

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### ABSTRACT

Posthypoxic myoclonus (PHM) is a neurological complication characterized by uncontrolled myoclonic jerks following cardiac arrest. PHM is divided into 2 types. The acute type of PHM, which is called myoclonic status epilepticus, occurs within 12 hours in most cases after hypoxic brain damage in patients who are deeply comatose. The chronic type of PHM, which is known as Lance-Adams syndrome (LAS), is characterized by action myoclonus beginning within days to weeks after cardiopulmonary resuscitation (CPR) and persists in patients who have recovered consciousness after CPR. Lance-Adams syndrome (LAS) was first described in the 1960s by Lance and Adams, who described 4 patients

who developed myoclonic jerks within a few days following an episode of anoxia. The myoclonus in LAS has no consistent correlation with EEG abnormalities. Although the pathophysiology of LAS has not been clearly defined, the prognosis is known to be quite good. While there have been few reports on LAS studied by MR spectroscopy (MRS), it appears a promising approach. Where cranial PET scan showed a mild bilateral decrease of glucose metabolism. Lance-Adams syndrome is a rare complication and less than 150 cases have been reported in the literature. Making an early diagnosis and properly managing LAS is positively related to improving the patient's functional outcome. To the best of our knowledge, this is the first case report of LAS in Pakistan. We report a case of a 40-year-old male patient, up and about at home, known smoker who presented to a periphery hospital with central chest pain with sweating and shortness of breath. He was diagnosed as having Anterior wall ST elevation Myocardial infarction (STEMI). Streptokinase was given but patient went into ventricular fibrillation and cardiac shock given (DCC) 6 times. CPR done twice. Patient was intubated. 3 days later when patient regained consciousness and was extubated, he found to have generalized myoclonic jerks multiple episodes which did not respond to injection valproate and levetiracetam but temporarily controlled with injection midazolam. EEG did not show epileptiform discharges even at time of myoclonic jerks. Patient was referred to Liaquat National hospital for neurological opinion and management. MRI brain was remarkable. He was diagnosed as LAS and managed conservatively. Levetiracetam was continued. Myoclonic jerks decreased in frequency over period of days and patient discharged in conscious awake state. Myoclonic jerks were present during any activity and change of position. It is important to distinguish LAS from posthypoxic seizures so a correct prognosis can be provided. One of the important clinical features is consciousness. The patient in this case had remarkable features that are consistent with LAS.

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#### **ACUTE PROXIMAL MOTOR NEUROPATHY TRIGGERED BY ANTI-TUBERCULOUS THERAPY- A CASE OF A MISSED DIAGNOSIS OF ACUTE INTERMITTENT PORPHYRIA AND REVIEW OF LITERATURE**

*Dr. Masood Uz Zaman, Dr. Sara Khan  
Aga Khan University Hospital, Karachi.*

#### **ABSTRACT**

#### **STUDY DESIGN**

Case Report and review of literature

#### **OBJECTIVE**

To describe a case of Acute Intermittent Porphyria diagnosed after development of severe axonal motor neuropathy triggered by anti-tuberculous treatment.

#### **METHODS**

We report a case of a 22-year-old gentleman diagnosed as abdominal tuberculosis (TB) due to a long-standing history of recurrent abdominal pain in the setting of a previous diagnosis of abdominal TB. He was treated with anti-tuberculous drugs for 2 months following which he developed subacute weakness of all four limbs. The patient did not have any cerebral, cerebellar or sensory dysfunction.

#### **RESULTS**

Electrodiagnostic testing revealed; severe acute on chronic pure motor neuropathy. With these results, and looking at his long-standing history in retrospect, targeted testing revealed elevated porphyrin precursors in urine.

#### **DISCUSSION**

Early diagnosis of Acute Intermittent Porphyria (AIP) needs high index of clinical suspicion as AIP presents with diverse group of symptoms. Delaying diagnosis and treatment of AIP can cause long-term or permanent neurological damage or may even lead to death.

#### **KEY WORDS**

Acute Intermittent Porphyria, Motor Axonal Neuropathy.

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#### **PROGRESSIVE MULTIFOCAL LEUKOENCEPHALOPATHY –UNEXPECTED AND RARE OUTCOME!**

*Dr. Muhammad Irfan  
Dow University of Health Sciences*

Progressive Multifocal Leukoencephalopathy in immune-competent patient with HIV- negative serology Progressive Multifocal Leukoencephalopathy is a rare but life-threatening demyelinating disease of central nervous system caused by reactivation of polyomavirus JC which infects oligodendrocytes. It results in multifocal demyelinating patches in white matter usually occurs in patients with impaired cell-mediated immunity due to HIV/AIDS, hematologic malignancies, granulomatous diseases, SLE, multiple sclerosis and immunosuppressive and immunomodulatory therapies. Diagnosis is based on MRI Brain plus CSF PCR for JC virus. But it was reported to have developed in immune-competent patients. We describe the clinical course of PML in a 30-year-old male patient who was a known drug addict to oral diazepam and midazolam with negative HIV serology and positive JC virus in CSF with bilateral asymmetric multifocal hyperintense lesions in fronto-temporo-parietal lobes on MRI. Complement and Immunoglobulin's were within normal limits. ANA and anti ds DNA were negative. Initial CD4 count was low but it was normal after repeat on two months apart. Patient was given mefloquine and mirtazapine on trial basis. It showed improvement of lesion on MRI and surprisingly JC virus in CSF fluid turned out to

be negative. All these contributed to a good clinical outcome after four months. Although the most common course of PML is rapid, fatal neurologic deterioration, a review of the literature shows that a fluctuating course with interval improvement may be consistent with the diagnosis of PML. There is always a need to explore further treatment option in this regard.

#### **SPECTRUM OF ACUTE FLACCID PARALYSIS IN CHILDREN**

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Department of Paediatric Neurology  
Preferred Mode of Presentation: Oral

#### **ABSTRACT**

**Introduction:** Acute flaccid paralysis (AFP) is a clinical syndrome characterized by rapid onset of weakness in a child aged less than 15 years due to any cause or any paralytic illness in a person of any age when polio is suspected. Exact cause of AFP with its incidence is needed for proper management.

#### **OBJECTIVE**

To determine the spectrum of AFP cases in children.

#### **STUDY DESIGN**

Retrospective, observational study.

**Place n duration of study:** Department of Neurology, Children Hospital & the Institute of Child Health, Lahore from January 2015 to October 2015.

#### **METHODS**

Retrospectively, we extracted the data from multi centers of notified AFP cases. Causes of AFP were sorted out with their frequencies.

#### **RESULTS**

Out of 376 cases of AFP, there was male predominance 59.57% (n=224) with male to female ratio 1.5:1 (age ranged 11-18 Years). Highest no. of patients fall in other categories (23.9%) including neuropathy, myopathy, spinal muscular atrophy, sepsis and TB spine, followed by GBS (18.88%) TN (12.76%), hypokalemic hypotonia (9.30%), and CNS infection (3.45%). Minor illnesses include spinal muscular atrophy, cerebral palsy, cellulitis (.53%) n rickets (0.26%), Wild polio cases declined because of intensive oral polio vaccine immunization and were found to be 1.59% (n=6) in 6 districts of Punjab having 4 cases in west and each in north and south region.

#### **CONCLUSION**

Non polio cases of AFP are more than Polio. For global eradication of poliovirus (PV), Pakistan should remain vigilant for effective surveillance of Polio and non-polio cases.

#### **KEYWORDS**

AFB, GBS, Polio, TN

#### **MOTOR NEURON DISEASE PRESENTING WITH FATIGUABILITY – A CASE REPORT**

Dr. Zainab Saleem  
Dow University of Health Sciences, Civil Hospital Karachi

#### **ABSTRACT**

There is an imperative need for the early diagnosis of amyotrophic lateral sclerosis/ motor neuron disease (ALS/MND) in the current era of emerging treatments. When evaluating the patient with ALS /MND, the neurologist must consider a number of other motor neuron disorders and related motor syndromes that may have clinical features resembling ALS /MND. We report a case of 45 yr old male who presented with gradual onset of foot drop in his right lower limb during his regular evening walk over a period of one year, followed by weakness of right upper limb. On examination fatigability was present in proximal muscles of upper limb and small muscles of hand resembling myasthenia gravis. However on EMG /NCVS it turned out to be the anterior horn cell disorder.

#### **ACUTE MOTOR AXONAL NEUROPATHY WITH ACUTE LYMPHOBLASTIC LEUKEMIA**

Dr. Uzma Aftab, Dr. Khalil Ahmad, Dr. Tariq Ghafoor  
Combined Military Hospital Rawalpindi

#### **ABSTRACT**

#### **BACKGROUND**

There are only few reports of GBS in children with ALL. Differentiation from other neuropathies is important from the therapeutic point of view.

#### **OBJECTIVE**

We report a case of GBS in a child on induction chemotherapy for ALL and discuss the clinical and electrophysiological features and potential mechanisms of pathogenesis.

#### **CASE REPORT**

Our patient is an 11 year old girl diagnosed with Pre B acute lymphoblastic leukemia. She was started on induction chemotherapy with prednisolone, vincristine, daunorubicin and L-asparaginase. In the fifth week, she developed symmetrical and gradually progressive proximal and distal weakness of lower limbs, progressing to paraplegia over a period of 3 days. She did not have any sensory symptoms. The tendon reflexes were absent. Electrophysiological evaluation was done on 5th day of weakness which was suggestive of acute motor axonal neuropathy a variant of GBS. There was small amplitude motor CMAP in bilateral Tibial and left Ulnar nerves.

Sensory studies were within normal limits. Prolonged F-wave latencies from other nerves were prolonged. CSF was not done. A follow up study was done after 4 weeks. There was similar findings in motor nerves with evidence of denervation and reinnervation in many muscles on electromyography.

## DISCUSSION

Depletion of the regulatory T cells which suppress autoreactive T cells, either resulting from ALL or intensive chemotherapy has been postulated as the mechanism underlying the genesis of acute immune neuropathies in ALL. However, the occurrence of immune neuropathy in immunocompromised children is interesting. It is important to differentiate it from Vincristine induced neuropathy

## HYPOPARATHYROIDISM - A RARE MIMICKER OF MOTOR NEURON DISEASE

Haris Hakeem

Masood Uz Zaman, Sara Khan (MD, DABPN)

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## ABSTRACT

### BACKGROUND

Motor neuron disease (MND) carries a grim prognosis. Various MND mimickers have been described in literature and should be ruled out before making this diagnosis. We, hereby, present a case of a potentially treatable endocrinopathy that presented as MND. To the best of our knowledge, only one such case has been reported in the past.

### CASE HISTORY

A 61-year-old male, presented with 8 month history of progressively worsening limb weakness and swallowing difficulty. Examination showed mixed upper and lower motor neuron signs without sensory impairment. MND was suspected. As nerve conduction studies/electromyography were not supporting our clinical impression, MRI brain was done that revealed bilateral basal ganglia and thalamic calcification. Further blood workup confirmed the diagnosis of hypoparathyroidism.

### CONCLUSION

Hypoparathyroidism, a potentially treatable endocrinopathy, can rarely present clinically as MND and should be ruled out before making a final diagnosis.

## A CASE REPORT OF JOUBERT SYNDROME IN ADULT PRESENTING WITH COGNITIVE IMPAIRMENT

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## ABSTRACT

Joubert syndrome (JS) is rare autosomal recessive

condition characterized by hypotonia, ataxia, psychomotor delay, and variable occurrence of oculomotor apraxia and neonatal breathing abnormalities, intellectual disability, and specific mid-hindbrain malformation ("molar tooth sign", MTS). Joubert syndrome (JS) was originally described by Marie Joubert in 1968. The incidence of JS has been estimated between 1/80,000 and 1/100,000 live births. Diagnostic criteria for JS include hypotonia, ataxia, global developmental delay, and the neuroradiological finding of MTS. We already reported case of Joubert syndrome in Oct 2014 in Pakistan Journal of Neurological Sciences. Now we presented a case of 22 yr old male normal birth history, no hypoxic birth injury, achieved milestone by age of 2 yr noticed speech delayed and presented in OPD with cognitive impairment. On examination awake, following single step command. EOM full, no nystagmus. No facial asymmetry, Power 5/5 in all 4 limbs. MMSE score was 10 out of 30. MRI brain showing vermis is hypoplastic and superior cerebellar peduncles are prominent with a deep midline defect at the posteromesencephalic junction, giving a characteristic "MOLAR TOOTH SIGN". 4th ventricle shows "BAT WING" appearance. Findings likely due to Joubert syndrome. Joubert syndrome and related disorders (JSRD) refers to individuals who have JS with additional findings such as eye, renal and hepatic problems. As JS is associated with multiorgan involvement, these patients should enter a diagnostic protocol to assess systemic abnormalities. Extreme caution should be taken while administering drugs in these patients as they are prone to respiratory depression. Early diagnosis of Joubert syndrome and related disorders (JSRD) is important for rehabilitation programmes, prognostic outcome and genetic consultation. Close follow-up is also necessary to identify potential complications of the disease

## EFFICACY IN PERFORMANCE COMPONENT BY APPLYING CONVENTIONAL PHYSICAL TREATMENT VERSUS COMBINATION OF CONVENTIONAL TREATMENT, ACTIVITIES OF DAILY LIVING AND SOCIAL MODE OF THERAPY ON CEREBRAL PALSY HEMIPLEGIC CHILDREN

Bakhtawar Saleem, Neelum Zehra, Naveed uddin

## ABSTRACT

### OBJECTIVE

To evaluate the efficacy of combined course of therapy on Cerebral Palsy Hemiplegic Children.

### INTRODUCTION

Traditionally, health care for children with CP focuses on early diagnosis, precise classification, and efforts to diminish motor impairments such as spasticity, muscle weakness, and decreased range of motion, and to manage associated challenging medical comorbidities. Rehabilitation programs have begun shifting focus from

minimizing deficits to enhancing functional success and participation in spite of persisting deficits. Targeted interventions aimed at improving quality of life and participation are lacking, in part because of limited data on the factors that influence these outcomes. The purpose of this study is to evaluate the effectiveness on performance component by applying multi modality course of therapy on Cerebral Palsy Hemiplegic Children.

## METHOD

This experimental research was conducted at Dow Institute of Physical Medicine & Rehabilitation. The duration of this study was 30 sessions, 6 days a week. 4 CP Moderate Spastic Hemiplegic children were selected. The intervention was provided in groups of 2, each group consisted of 2 children. Group A was given combination of conventional physical therapy, ADL and social mode of therapy and Group B was given only conventional physical therapy. GMFCS, QUEST and WeeFIM scales were used for data collection of the CP Hemiplegic children to assess their level of Gross Motor Functioning, Upper Extremity performance and ADL skills respectively.

## RESULT

Result was analyzed by SPSS 16.0 version using Wilcoxon Sign Ranked Test and it revealed that there was significant difference in the change score of Quest and WeeFIM assessment scales. Although efficacy in performance components have been increased more in Group A after combine interventions than Group B.

## CONCLUSION

This study concludes that the combination of therapies implemented on group A than conventional therapy on group B have significant effects in treating physical component where as group A shown more significant scores in self care and social skills as compare to group B. Keywords: Cerebral Palsy, Activities of Daily Living (ADL), CP Hemiplegic, Gross Motor Functional Classification Scale (GMFCS), Functional Independence Measure (WeeFIM), Quality of Upper Extremity Skills Test (QUEST).

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## IMPACT OF PARENTING STYLE IN BEHAVIOR DEVELOPMENT OF CHILDREN

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## INTRODUCTION

Parents have an essential role in children's nurturing. Parenting style is a psychological standard strategy that parents adopt for child rearing. Parenting styles are the combinations of strategies and functions which parents used to respond to their children demand. It has been observed that if parents developed their children with proper nurture, independence and firm control then their children have high levels of competence and are socially skilled and proficient.

## OBJECTIVES

- To explore which parenting style is common in our population.
- To find out which parenting style is more devastating to child's behavior.

## METHODS AND MATERIAL

Data was prospectively taken from outpatient department of Liaquat National Hospital and Neuro Clinic and Falij Care of Neuropsychology service, the age range was 25 to 45 years. Data was collected from already diagnosed patients. The parenting style was explored through parenting style questionnaire (PSQ).

## RESULTS

Total 86 parents were taken for the study, whose children were already diagnosed with behavioral issues through psychological assessment. 42% parents adopt permissive and 28% authoritarian parenting style. Moreover, permissive parenting style had devastating effects on child behavior development.

## CONCLUSION

This study revealed that in population of children with behavior outburst, parents adopt permissive parenting style.

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## TYPE OF CUSTOMERS IN HEALTH CARE

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## INTRODUCTION

The first rule of any business knows your customer. Attaining patient satisfaction in health sector is a complex task for professionals. Get cure from any disease is the core idea or expectation of every patient no matter what will be the diagnosis and prognosis he or she have. Satisfy your patient at fullest is the ultimate goal of any

institution. Certain factors like, physician knowledge, personal attributes, accessibility, convincing of location, surrounding area and continuity of care are the patient sensitive topics. One can turn unsatisfied patient into a fan with handling these factors.

### OBJECTIVES

- The purpose of this study is to identify incidence of customer type in OPD of Speech Language Pathology services.
- Which type of customer is highest among all of them?

### MATERIAL AND METHODS

Through comprehensive literature search a questionnaire was developed to identify customer type. Data was prospectively taken from OPD of speech pathology service at Liaquat National Hospital.

### RESULTS

Total 107 speech pathology patients/ patients care giver were involved in this study. 16% were identified as “the meek customer”, 32% patients were “the aggressive customer” 12% were labeled as “the high-roller customer”, 19% were known as “the rip-off customer” and 21% were tagged as “the chronic complainer customer”.

### CONCLUSION

This study shows that the majority of patients identified as “the aggressive customer” which draw excuses for the unsatisfactory practice.

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### TECHNOLOGY OVERLOAD: PATTERNS OF LANGUAGE IN CHILDREN WITH LANGUAGE DELAY

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### INTRODUCTION

Communication is an innate reflex of human being. Speech and Language is one modality to communicate. Child is passing through a sequence of development, certain factors play on impressive role in acquiring, developing and ensuring language in children. Active parental conversation, enriched social environment and positive linguistic feedback prove to be the foundation in language milestones. It has been observed that the children linguistic abilities have declined significantly over

the last few years. One of the major factors behind this devastating effect on language is due to increase exposure of T.V and technology entertainment gadgets. These electronic gadgets become easy to carry, inexpensive, higher resolution, clear audio, larger screen and greater affordability make them handy and attractive for everyone.

### OBJECTIVES

- To explore incidence of language problem in children who are technology dependants.
- To find out type of language pattern present in children with technology dependents

### MATERIAL AND METHODS

Through comprehensive search of literature two tools were developed for the study. Data was prospectively drawn from OPD of Liaquat National Hospital and Neuro Clinic and Falij Care of speech language pathology. The age range was 2 years to 5 years.

### RESULTS

Total 96 patient were viewed for the study. 63% patients had technology dependent. Out of which 43% patients had abrupt language skills. 80% children had weakness in grammatical pattern.

### CONCLUSION

The following study shows that technological dependent children have different language pattern as compare to their age mates.

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

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Anti-N-methyl-D-aspartate receptor (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.

#### KEY WORDS

Anti-NMDA, Encephalitis, Autoimmune epilepsy

#### DURATION OF DIABETES MELLITUS AND HAND MANIFESTATION

Hazim Brohi<sup>1</sup>, Rajesh kumar<sup>2</sup>, Aqiba surfaraz<sup>3</sup>, Usman<sup>4</sup>, Syed Ijlal Ahmed<sup>5</sup>

#### ABSTRACT

Long standing uncontrolled diabetes is associated with many clinical problems and it also frequently involve hands and causing stenosing tenosynovitis (trigger finger), Dupuytren's contracture, carpal tunnel syndrome, and limited joint mobility 1-2. The prevalence of hand symptoms has been variable in different studies. Data from our part of world is scares. Our study aimed at looking at frequency of hand symptoms in our diabetic patients.

#### METHODS AND MATERIALS

Our study was a comparative cross sectional observational study. It was conducted by collaboration of department of neurology and endocrinology. We included the entire diabetic patient who attending the diabetic clinic of LNH hospital in one month. Patients were categorized as having diabetes for five years between 5—10 years and above. The clinical modalities included tenosynovitis (trigger finger), Dupuytren's contracture, carpal tunnel syndrome, hand weakness and limited joint mobility and shoulder capsulitis. These modalities were assessed clinically. The data was compiled and analyzed on IBM

SPSS statistics version 21.

#### RESULTS

Out of 249 patients only Twenty nine percent patients had symptoms. Hand symptoms were significantly associated with the duration of diabetes mellitus ( $p=0.004$ ). Among hand symptoms significant association was found between carpal tunnel syndrome ( $p=0.0001$ ) and hand weakness ( $p= 0.007$ ). Trigger finger, Dupuytren's contracture, cherieopediatric changes and morning stiffness and shoulder capsulitis were not significantly associated with duration of DM.

#### CONCLUSION

The development of hand symptoms has association with duration of diabetes mellitus.

#### HYPERKALEMIA DUE TO POTASSIUM SPARRING DIURETIC ASSOCIATED WITH RHABDOMYOLYSIS AND LOWER LIMB WEAKNESS.

Dr Quratulain panhwar  
Dr Hazim Brohu  
Liaquat national hospital

#### ABSTRACT

Hyperkalemia due to potassium sparing diuretics is very common but this leading to Rhabdomyolysis and bilateral lower limb weakness is very rare. Hyperkalemia and Rhabdomyolysis with lower limb weakness is mostly caused by trauma crush injuries, .All literature research failed to find any study that shows hyperkalemia due to potassium diuretic leading to rhabdomyolysis and lower limb weakness. Here we report a case of 45 years female who was on spironolactone for dilated cardiomyopathy presented with generalized weakness more in bilateral lower limbs and shortness of breath was worked out to have hyperkalemia, high CPK and acute renal failure.

#### AN OVERLOOKED CAUSE OF DEMENTIA

Shazma Khan<sup>1</sup>, Mughis Ahmed Khan Sheerani<sup>2</sup>

#### ABSTRACT

Progressive dementia or behavior change in young adults should be scrutinized very seriously. Syphilis, transmitted sexually by Treponema Pallidum, varies vastly in presentation. It is hence considered the "great mimicker" and warrants a great deal of investigations. We report here the case of a 32-year-old gentleman who presented with two year history of progressive behavior change, cognitive and functional decline. Having had multiple amiss diagnoses by physicians and psychiatrists, he then came to our hospital where detailed neurological work up revealed brain atrophy and infective cerebrospinal fluid. A complete blood panel for dementia exposed Syphilis via very high titer of Venereal Disease Research Laboratory (VDRL) test. Treated fortnightly with Pencillin G, the

patient improved strikingly. This case unveils that syphilis, let alone neurosyphilis, is generally under diagnosed due to exceedingly vague symptoms and one negative test may distract the investigator from investigating further, leading to permanent functional and cognitive decline.

## KEYWORDS

neurosyphilis, syphilis, dementia, VDRL.

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## STATUS EPILEPTICUS IN ADULTS: 9 YEAR EXPERIENCE FROM A TERTIARY CARE HOSPITAL OF KARACHI

Hazim Brohi, Rajesh Kumar, Syed Ijlal Ahmed, Shoaib Abrar, Muhammad Sheeraz

## ABSTRACT

Status epilepticus is life threatening condition associated with considerable health-care costs, morbidity, and mortality. So need urgent treatment.

## MATERIALS AND METHODS

Our study was a descriptive comparative cross sectional study conducted from January 2011 to December 2015 at department of neurology of Liaquat National Hospital, Karachi. Data was collected by trained staff of department of neurology. Data was collected from scanned files of medical records of the hospital admitted patients. The variables of our study were age of patients, duration of patient stay in hospital stay (days), reason of admission, time of diagnosis, mode of diagnosis, EEG finding, no of EEG done, changes detected in EEG, medications, IV combination, no of anti epileptic drugs, outcome of disease, status at DC, total cost of treatment. The inclusion criterion of our study was all patients with status epilepticus. The exclusion criterion of our study was exclusion of any other neurological pathology.

## RESULTS

The total number of study participants in our study was 25 patients. The mean age of patients was 56.08(±27.4) years. Out of which 9(36%) were males and 16(64%) were females. 7 (28%) patients were diagnosed status epilepticus on EEG basis only, while 18(72%) were clinical as well as EEG proven. The most common underlying cause of status epilepticus was scar 9(39%) followed by post CPR 6(26%) and infections 4 (17.4%) and the most common presentation during admission was epileptic seizures 11(44%). The most common drug used in our status epilepticus was Epival in 17(68%). The average hospital stay of status epilepticus patients was 15 (±10.5) days. The outcome of status epilepticus was 8(32%) were

discharged and 16(64%) were expired and only 1(4%) left against medical advice.

## CONCLUSION

Status is a life threatening condition needs urgent management. Underlying untreatable cause of status has high mortality.

## ROLE OF ELECTROPHYSIOLOGY IN THE DIAGNOSIS OF MERALGIAPROSTHETICA;

Hazim Brohi, Rajesh Kumar, Naveeduddin Ahmed, Syed Ijlal Ahmed, Musarrat Shaheen, Muhammad Sheeraz

## ABSTRACT

Meralgiaprosthetica is a condition resulting from entrapment of the lateral coetaneous nerve of thigh when it angulates sharply under the inguinal ligament. It is second most frequent entrapment mononeuropathy of the lower limb with incidence rate of 4.3 per 10,000 person/years. The nerve is commonly compressed in conditions including obesity, pregnancy, ascites, tight garments, seat belts, braces, direct trauma, leg length changes, scoliosis, and muscle spasm. Clinically it presents with pain, burning, numbness, muscle aches, coldness, lightning pain, or buzzing (like a cell phone) in their lateral or anterolateral thigh, which exaggerated with prolonged standing and walking and relieved with sitting. Some pathology of spine like lumbar stenosis, disc herniation, and nerve root radiculopathy can mimic the neurological symptoms (e.g. numbness, paresthesias) of meralgiaprosthetica. Electrophysiologically it is diagnosed with sensory nerve conduction study of LFCN. Data from our country is lacking, so we did a retrospective study in all such patients who were referred with pain or numbness in thigh and the clinician suspected meralgiaprosthetica.

## METHODS

All patients referred for evaluation of meralgiaprosthetica to neurophysiology lab of Liaquat National Hospital. Charts of all such patients were reviewed and the data was entered in SPSS. Only patients who were found to have meralgiaProsthetica(MP) were included.

## RESULTS

In our study 22(27.5%) patients had meralgiaprosthetica and 27(33.8%) had lumbosacral radiculopathy and three had both the diagnosis.

## CONCLUSION

Neurodiagnostic studies play an important role in making exact diagnosis among the differentials of meralgia-prosthetica.

# BRIEF REPORT ON 2ND NATIONAL NEUROREHABILITATION CONFERENCE

**Dr. Abdul Malik**

*Assistant Professor- Neurology, Department of Medicine Liaquat College of Medicine & Dentistry- Karachi*

*Secretary Organizing Committee 2nd National Neurorehabilitation Conference & Treasurer Pakistan Society of Rehabilitation & Allied Professionals (PSNR)*

Neuro-Rehabilitation is the most important area of rehabilitation medicine and it focuses on reinstatement of function and subsequent reintegration of neurologically impaired patient into community. Neuro-rehabilitation is in infancy stage but growing and neglected field; it is the need of the day due to rising number of neurologically impaired patients who do not receive timely multidisciplinary neuro-rehab services. To synergize and activate this potential component of the medical and allied professionals Pakistan Society of Neurology under the leadership of Prof. M. Wasay assigned the task to organize national academic meeting this year at Karachi. Pakistan Society of Neuro-rehabilitation (PSNR) in collaboration with the Pakistan Society of Neurology (PSN), Neurology Awareness & Research Foundation (NARF) & Dow University of Health Sciences (DUHS) organized the 2nd National Rehabilitation Conference on January 9-10, 2016 (Saturday & Sunday) at the Arag Auditorium DUHS, Karachi which was the significant event to spread awareness and to promote latest trends in neuro-rehabilitation practice among health professionals. There were four scientific sessions and four workshops including the distinctive hands on workshop on Spasticity & Pain Issues in Stroke Patients by the invited facilitator from USA, Dr. Iqbal Jaffari Director of Pain Medicine Program at JFK Johnson Rehab Institute, New Jersey. The speakers from UK, USA, UAE and Pakistan were shared their experiences pertaining to neurorehabilitation. Other workshops included Hands on Assessment & Rehab in Stroke Patient and Assessment & Rehab of Trunk in Neurological Patient conducted by the team of IPM&R while the last one was on Medical Writing & Research in Neurology by the guest facilitator from CMH Lahore & Pano Aqil. The core of the discussion was started in the inaugural session by the enlightened talk of the pioneer of rehabilitation in Pakistan Dr. S. R. Kiramani on Past, Present & Future of PM & R in Pakistan. He talked in glimpses the journey of physical medicine and rehabilitation in the country. He elaborated on the development of this faculty and phases of the formation of this speciality. Prof. Muhammad Wasay discussed on the Burden of Disability and Challenges in Pakistan. He had mentioned the estimated statistics of disabled persons in the country. He presented that in Pakistan 43% of total

disabled population is children as compared to 10% of global percentage (2.18 Million). He emphasized on the causes and the role of rehabilitation in the treatment role for the patients. More than 200 exceedingly participative audiences from all parts of the country attended all the scientific sessions. In the inaugural session of a two day conference the President PSNR Prof. Nabeela Soomro welcomes the delegates & presented the brief overview and the working of the Institute of Physical & Rehabilitation.



In the scientific sessions Dr. Sabahat Wasti from UAE delivered talk on A Model Rehab Unit, Younne Frizzile discussed on Pediatric Neurological Rehabilitation: How different is it from adult? Graham Denver deliberated on Role of the Orthotist in Neuro-rehab, Prof. Arsalan Ahmed talked on Alzheimer's disease Rehabilitation, Prof. Iqbal Afridi discussed on the Mental Health, Psychiatric Diseases & Disability and Prof. Rasheed Jooma given the Traumatic Brain Injury and Spinal Cord Injury: Rehabilitation Issues in Pakistan. Dr. M. Naveed Babur given the details of Rehabilitation Education in Pakistan, Prof. Alam Ibrahim Siddiqui from Larkana shared his experience with the title of Stroke Rehabilitation in Resource Limited Areas and our guest speaker from USA Dr. Iqbal Jaffari given the Stroke Recovery Program. There were 15 oral presentations & five posters presentations from all major institutes of the country. There was also a Inaugural Session and the Prof. Masood Hameed Khan (VC DUHS) was the Chief Guest of the occasion.

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