4TH Oman NEUROLOGY CONFERENCE

PROGRAM BOOK

8-9 NOVEMBER 2024

MAANI HOTEL, MUSCAT, OMAN

ORGANIZED BY

الرابطة العُمانية لطب المخ والأعصاب
Oman Neurology Society
رابطة الصرع العمانية
Oman League Against Epilesy
الرابطة العمانية لمرضى الصرع
Oman Epilepsy Society

IN COLLABORATION WITH

سلطنة عمان
وزارة الصحة
SULTANATE OF OMAN
MINISTRY OF HEALTH
جامعة السلطان قابوس
Sultan Qaboos University
Sultanate Of Oman
University Medical City

ENDORSED BY

OMAN MEDICAL ASSOCIATION
PAUNS

ACCREDITED BY

MSB
المجلس العماني للاختصاصات الطبية
OMAN MEDICAL SPECIALTY BOARD

(+968) 79991688
conference@omanneurologysociety.org

WELCOME MESSAGE

Dr. Abdullah Al-Asmi, MD, FRCP(C)
ONC 2024 Chairman

Dear Esteemed Colleagues,

On behalf of the Oman Neurology Society (ONS) and Oman Epilepsy Society (OES), it is with great excitement that I extend a warm welcome to you all to the much-anticipated 4th Oman Neurology Conference (ONC 2024)! Mark your calendars for November 8th-9th, 2024, as we gather in the vibrant city of Muscat, Sultanate of Oman, for an extraordinary event dedicated to advancing the field of neurology.

This year's conference will offer a rich scientific program encompassing a diverse array of subspecialties within Neurology. From cutting-edge diagnostic techniques to revolutionary treatment modalities, ONC 2024 will showcase the forefront of Neurological innovation and excellence.

In addition to the stimulating academic program, attendees will have the opportunity to immerse themselves in the captivating charm of Muscat, renowned for its stunning landscapes, rich cultural heritage, and warm hospitality.

Don't miss out on this exceptional opportunity to be part of this scientific conference. Register now to secure your place at ONC 2024.

We eagerly anticipate your participation and look forward to welcoming you to Muscat for an unforgettable conference experience!

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الرابطة العُمانية لطب المخ والأعصاب

Oman Neurology Society

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OUR OBJECTIVES

01

Present the latest and most up-to-date evidence in Neurology and its' different subspecialties.

02

Offer the means of discussing and establishing local practice guidelines on the most common Neurological disease encountered in Oman.

03

Allow Neurologists and related specialties in the country to present and discuss their latest experience and research in the field.

04

Facilitate the collaboration between national, regional, and international neurologists in areas of clinical practice, research, innovation, and training.

05

Update the non-neurologist physicians with the newest developments in neurology which will impact the clinical practice and guide them with the initial evaluation of a variety of common neurological presentations.

06

Inspire junior doctors and medical students to pursue a career in Neurology, allowing them to explore research opportunities and network with different neurology subspecialties.

COMMITTEES

COMMITTEE

ORGANIZING COMMITTEE

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Sr. Consultant Neurologist and Neuromuscular Specialist,
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PROF. AMNA AL FUTAISI, MD. FRCP(C)

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Consultant, Vascular & Interventional Neurologist.
Head of Department of Neurology and Stroke Unit, Khoula Hospital, Ministry of Health, Muscat, Oman

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COMMITTEE

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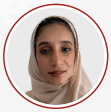

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COMMITTEE

THE CONFERENCE VENUE SETUP AND HANDLING COMMITTEE

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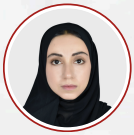

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PROGRAM

PROGRAM

SCIENTIFIC PROGRAM

DAY 1, FRIDAY- 8 NOVEMBER 2024

07:00 – 09:00	REGISTRATION	
TIME	**TOPIC**	**SPEAKER**
08:00 - 09:10	Session 1: Emerging Advances in Neurology	Moderators: Prof. Arunodaya Gujjar & Prof. Amna Al Futaisi
08:00 - 08:20	Venous Sinus Stenting in IIH	Dr. Ali Al Balushi (Oman)
08:20 - 08:40	Alzheimer Disease- Disease Modifying Therapies	Dr. Haythum O Tayeb (KSA)
08:40 - 09:00	Artificial intelligence in Neurology (Virtual)	Dr. Benjamin Kummer (USA)
09:00 - 09:10	Q & A	All speakers
09:10 – 09:40	Pfizer Symposium: How can we harness Rimegepant in clinical practice today and into the future?	Moderator: Dr Ahmed Al Qassabi Speaker: Dr Taoufik Alsaadi (UAE)
09:40 – 09:55	Opening Ceremony	
09:55 – 10:20	Coffee break	
10:20 – 10:40	Novartis Symposium: Pioneering Precision with Kesimpta- The first and only self administered anti-CD20 therapy in MS	Moderator: Dr Abdullah Al Asmi Speaker: Dr Iman Al Lawati (Oman)

PROGRAM

SCIENTIFIC PROGRAM

DAY 1, FRIDAY- 8 NOVEMBER 2024

TIME	TOPIC	SPEAKER
10:40 - 12:10	Session 2: Epilepsy	Moderators: Dr. Fatma Abdulla, Dr. Said Al Mawali & Dr. Ahmed Mansy
10:40—11:00	Management of multifocal epilepsy	Dr. Sulaiman Al Hatmi (Oman)
11:00 - 11:20	Surgical management of epilepsy	Dr. Faisal Al Otaibi (KSA)
11:20 - 11:40	Benign epilepsy syndromes	Dr. Raidah Al Baradie (KSA)
11:40 - 12:00	Vitamin responsive epilepsies	Prof. Amna Al Futaisi (Oman)
12:00 - 12:10	Q&A	All speakers
12:10 – 13:50	Friday Prayer and Lunch break /Poster sessions	
13:50-14:10	Novartis Symposium: Signs of SMA	Speaker: Dr Nabil Al Macki (Oman)
14:10-14:30	AstraZeneca Symposium: Focus on timing on Myasthenia Gravis Management	Moderator: Dr. Abdullah Al-Salti Speaker: Dr. Areej Bushnag (KSA)
14:30 - 16:00	Session 3: Neuroimmunology & Neuroinflammatory diseases	Moderators: Dr. Abdullah Al Asmi & Dr.Jaber Al Khabouri
14:30 - 14:50	Pregnancy & lactation in MS	Dr. Iman Al Lawati (Oman)
14:50 - 15:10	Pediatric neurodemyelinating syndromes	Dr. Nabil Al Macki (Oman)

PROGRAM

SCIENTIFIC PROGRAM

DAY 1, FRIDAY- 8 NOVEMBER 2024

TIME	TOPIC	SPEAKER
15:10 - 15:30	Modern therapies of multiple sclerosis	Dr. Yasser Al Malik (KSA)
15:30 - 15:50	Updates on NMOSD & MOGAD (Virtual)	Dr. Dina Dababneh (USA)
15:50 - 16:00	Q&A	All speakers
16:00 – 16:20	Coffee break	
16:20 - 17:30	Session 4: Cognitive & Behavioral Neurology	Moderators: Dr. Haythum O Tayeb and Dr. Khaleel Al Shaikhli
16:20 - 16:40	Autoimmune Encephalitis Update (Virtual)	Dr. Sarosh Irani (USA)
16:40 - 17:00	Rapidly progressive dementias	Dr. Ammar Al Obaidy (Oman)
17:00- 17:20	Management of behavioral symptoms in dementia	Dr. Hamed Al Sinawi (Oman)
17:20 - 17:30	Q&A	All speakers
WORKSHOPS		
16:30 - 17:30	Room 1: Seizure recognition and semiology	Dr. Haifa Al Abri and Dr. Wafaa Al Shehhi (Oman)
	Room 2: Neuro-ophthalmology cases	Dr. Buthaina Sabt (Oman)

PROGRAM

SCIENTIFIC PROGRAM

DAY 2, SATURDAY- 9 NOVEMBER 2024

07:00 – 08:00	REGISTRATION

WORKSHOPS

TIME	TOPIC	SPEAKER
07:30 - 08:30	Room 1: Myelopathy cases	Dr. Iman Al Lawati & Dr. Khalsa Al Ramadhani (Oman)
	Room 2: Stroke cases	Dr. Achint Krishna & Dr. Ali Al Balushi (Oman)
08:00 - 09:30	Session 5: Headaches	Moderators: Dr. Abdullah Al Asmi & Dr. Abu Baker Madani
08:00 - 08:20	Headaches in children	Dr. Areeba Wasim (Oman)
08:20 - 08:40	Updates on giant cell arteritis management	Dr. Tariq Al Araimi (Oman)
08:40 - 09:00	Medication-overuse headaches	Dr. Alessandro Terruzi (UAE)
09:00 - 09:20	Migraine modern therapies	Dr. Abdulrazaq Al Bilali (KSA)
09:20 - 09:30	Q & A	All speakers
09:30 – 09:50	Pfizer Symposium: A single medication to both treat and prevent migraine- What is the evidence?	Moderator: Dr. Ali Al Balushi Speaker: Dr. Deeb Kayed (UAE)

PROGRAM

SCIENTIFIC PROGRAM

DAY 2, SATURDAY- 9 NOVEMBER 2024

TIME	TOPIC	SPEAKER
09:50 – 10:20	Coffee break	
10:20 – 10:40	Merck Symposium: Optimizing Treatment Approach for RRMS Patients	Moderator: Dr Abdullah Al Asmi Speaker: Dr Iman Lawati (Oman)
10:40 - 12:30	Session 6: Neuromuscular Disorders	Moderators: Dr. Abdullah Al Salti & Dr. Ahmed Sameer
10:40 - 11:00	Autonomic neuropathy and postural orthostatic tachycardia syndrome	Dr. Mossaed Al Yahya (KSA)
11:00 - 11:20	Neuromuscular crisis	Dr. Abu Baker Madani (UAE)
11:20 - 11:40	Approach to floppy infant	Dr. Fatema Al Amrani (Oman)
11:40 - 12:00	Modern therapies of myasthenia gravis	Dr. Mossaed Al Yahya (KSA)
12:00 - 12:10	Q&A	All speakers
12:10 – 12:30	Biogen Symposium: When Improvement is Possible in Teens and Adults with SMA.	Speaker: Dr. Areej Bushnag (KSA)
12:30 – 13:40	Lunch Break/ Poster Presentations	
13:40 – 14:00	Roche Symposium: Ocrevus- A decade of preventing disability	Moderator: Dr Abdullah Al Asmi Speaker: Dr Raed Al Roughani (Kuwait)
14:00-15:30	Session 7: Vascular Neurology & Neurocritical Care	Moderators: Dr. Ali Al Balushi & Dr. Suhail Al Rukun

PROGRAM

SCIENTIFIC PROGRAM

DAY 2, SATURDAY- 9 NOVEMBER 2024

TIME	TOPIC	SPEAKER
14:00 - 14:20	Stroke in young adults and children	Dr. Ashraf El Mitwalli (Oman)
14:20 - 14:40	Approach to ischemic strokes due to multiple mechanisms	Prof. Arunodaya Gujjar (Oman)
14:40 - 15:00	Current treatment of subarachnoid hemorrhage	Dr. Ahmed Al Azri (Oman)
15:00 - 15:20	Management of raised ICP	Dr. Caline El Jadam (UAE)
15:20 - 15:30	Q & A	All speakers
15:30 – 15:50	Awards and Recognitions	
15:50-16:10	Coffee break	
16:10 - 17:20	Session 8: Movements Disorders	Moderators: Dr. Ahmed Al Qassabi and Dr. Jaber Al Khabouri
16:10 - 16:30	Approach to shaky hands	Dr. Mahmood Al Hinai (Oman)
16:30 - 16:50	DBS for movements disorders (Virtual)	Dr. Erik Krause (USA)
16:50 -17:10	Phenomenology of Movements Disorders in Children	Dr. Wejdan Hakami (KSA)
17:10 - 17:20	Q&A	All speakers
17:20 – 17:30	Closing Remarks	

ABSTRACTS

SCIENTIFIC TALKS

DAY 1, FRIDAY- 8 NOVEMBER 2024

Dr. Ali Al Balushi

MD

Dr. Ali K. Al Balushi is a consultant, vascular & interventional neurologist andcurrently head of department of neurology and stroke unit at Khoula Hospital,Oman. He obtained his medical degree from Sultan Qaboos University and completed neurology residency at St Louis University School of Medicine. He then completed fellowship in vascular neurology from Icahn School of Medicine at Mount Sinai and another fellowship in endovascular neurosurgery from Weill Cornell School of Medicine. He is board certified in Neurology and Vascular Neurology by the American Board of Psychiatry and Neurology. He serves as the associate program director for Oman Medical Specialty Board Neurology residency program. Dr. Ali is the Chairman of the Scientific Committee of the 4th Oman Neurology Conference.

Venous Sinus Stenting in IIH: Dr. Ali Al Balushi

Idiopathic intracranial hypertension (IIH) typically affects overweight women of childbearing age. It results from increased intracranial pressure in absence of secondary causes. The major complications are permanent vision loss and disabling headaches. Medical treatment consists of weight loss and acetazolamide. Surgical treatment is indicated in patients with progressive or fulminant vision loss and in patients unresponsive to or intolerant of medical management. Optic nerve sheath fenestration and cerebrospinal fluid shunting are the main traditional surgical options. Recently however, stenosis of bilateral or dominant transverse-sigmoid venous sinus junction has been implicated in the pathogenesis of some patients with IIH and, consequently, stenting has emerged as a durable alternative therapy with good efficacy and safety outcomes when well-indicated. In this lecture, a brief discussion of the rationale and evidence supporting venous sinus stenting in IIH patients will be presented.

Dr. Haythum O Tayeb

MD FRCP Canada

Haythum O Tayeb is a Harvard-trained professor of neurology and the president of the Saudi Chapter of Behavioral Neurology. He is the chief of the institute of Mind and Brain Studies at King Abdulaziz University.

Alzheimer disease modifying therapies: Dr. Haythum O Tayeb

IThere have been recent revolutionary developments in the field of Alzheimer disease and cognitive aging. There are new disease biomarkers and new disease modifying treatments. In addition, there is a new emphasis on brain health as a major clinical target endorsed by major neurological societies worldwide. In this talk, Dr. Tayeb discusses these updates and reviews these developments on how they have transformed the way we evaluate patients with Alzheimer disease and cognitive impairment.

SCIENTIFIC TALKS

DAY 1, FRIDAY- 8 NOVEMBER 2024

Dr. Benjamin Kummer
MD

Dr. Benjamin Kummer is a triple-board certified vascular neurologist and clinical informaticist at the Icahn School of Medicine at Mount Sinai, where he serves as Associate Professor in Neurology and Artificial Intelligence and Human Health, and at Mount Sinai Health System (MSHS) as Director of Clinical Informatics in Neurology. Dr. Kummer has expertise in using informatics to enhance patient care in neurology, by building solutions in Epic and other clinical systems, with a focus on stroke. He is the Director of one of the first neuro-informatics research institutes (the Clinical Neuro-informatics Center at Mount Sinai) in the US.

Artificial intelligence in Neurology: Dr. Benjamin Kummer
Artificial intelligence (AI) is transforming neurology by offering advanced tools for diagnosis, prognosis, and treatment. This presentation will provide an overview of AI in neurology to establish a clear framework for understanding the potential of these
technologies in neurological disorders.
We will first discuss basic definitions in the AI lexicon including machine learning, deep learning, natural language processing, and large-language models. We will then briefly explore the major clinical areas where AI is making an impact divided into three broad areas: treatment, prognosis, and diagnosis. We will then discuss the challenges facing AI and potentially impacting adoption: data quality issues, limited generalizability of models, biases in algorithms, regulatory hurdles, and ethical concerns. We will also highlight the need for interdisciplinary collaboration to ensure AI technologies are developed and deployed responsibly in clinical neurology.

Dr. Sulaiman Al Hatmi
MD, MRCP (Neurology) / OMSB, RCPI (General Neurology), RCPI (Epilepsy)

Dr Sulaiman is currently working as Sr Consultant Neurologist and epileptologist in the Medical City for Military and Security Services. After completing Clinical Epilepsy Fellowship at Beaumont (Level 4 NAEC , National Association of Epilepsy Centers) Dublin , Ireland . Dr Sulaiman is a specialist epilepsy disorders Neurologist. His practice focusses exclusively on general neurology and the management of refractory cases of epilepsy. He has experience in the provision of all medical and surgical therapies for epilepsy including drug resistance multifocal epilepsy.

Management of multifocal epilepsy: Dr. Sulaiman Al Hatmi
Patients with medically refractory focal epilepsy due to multiple ictal onset zones can be difficult to treat surgically. These subgroup of drug refractory epilepsy are among the most difficult epileptic disorders to manage since they are often refractory to medical therapy and not treatable by resective epilepsy surgery , historically were thought to be poor surgical candidates. If ictal onset seizure is difficult to localize by standard video electroencephalography (EEG) monitoring, or if bilateral or eloquent area ictal onset is suspected, the patients move on to have invasive monitoring studies including stereo electroencephalography (sEEG) or subdural grids (SDG) to better delineate the ictal onset zone(s). Depending upon the location of the onset zone, subsequent resection, neurostimulation, or laser ablation might be performed or even a combination of these surgical modalities. The presentation high light briefly a new therapeutic strategies for these patients based on latest available surgical techniques .

SCIENTIFIC TALKS

DAY 1, FRIDAY- 8 NOVEMBER 2024

Prof. Faisal Al Otaibi
MD, FACS

Dr. Faisal Alotaibi is a Professor of Neurological surgery at King Faisal Specialist & Research Centre , Alfaisal University in Riyadh, Saudi Arabia. He obtained his neurosurgical training in epilepsy surgery at the Western University in Canada and Functional stereotactic neurosurgery at the London Health Sciences Centre in Canada and a Fellow of the American College of Surgeons. Currently, Dr. Alotaibi is a founding board member of the International Epilepsy Surgery Society IESS and the president of Saudi Epilepsy Society. He is former president of the Gulf League Against Epilepsy, GLAE. He is an editor and reviewer in local and international journals.

Epilepsy Surgery Advancements-The New in The Field: Prof. Faisal Al Otaibi
Epilepsy surgery is supported by technological advancement that has evolved over the last two decades. Wilder Penfield and colleagues at the Montreal Neurological Institute pioneered using epilepsy surgery patients to perform basic neuroscience research. Here, we shed light on the most advanced techniques and technology for epilepsy surgery and other neurosurgical procedures. Brain cortical mapping was started essentially in that era by direct cortical electrical mapping of different brain functions. Brain function mapping has progressed beyond electrical stimulation to utilizing the most advanced techniques and technology. Functional imaging has contributed to a better understanding different brain functions and the epilepsy network exploration. On the other hand, deep brain recording has resulted in more advancement in the field of brain connectivity.

Dr. Raidah Al Baradie
MD, ABMS, MSHA

Dr. Raidah Saleem Al-Baradie is a Consultant Pediatric Neurologist & Epileptologist and the Director of Comprehensive Epilepsy Program. She is the Neurology EHC1 Lead at King Fahad Specialist Hospital, Department of Neuroscience.

Benign Childhood Epilepsy: Dr. Raidah Al Baradie
Epilepsy is defined as 2 or more unprovoked seizures. The various types of epilepsy differ in many aspects, including (1) age of onset, (2) semiology, (3) EEG findings, and (4) outcome. In 1987, Freeman et al reported that most children with generalized tonic-clonic seizures have a benign developmental disorder that reduces their seizure threshold and will be outgrown. This disorder has been termed benign childhood epilepsy and is thought to be secondary to central nervous system (CNS) immaturity. In this presentation, the term benign epilepsy is used to refer to a group of pediatric epileptic disorders in which remission and lack of significant neurologic sequelae are expected in the vast majority of patients. These disorders are idiopathic, occur in otherwise healthy children, and have (with rare exceptions) a strong genetic component. They include generalized epilepsies and partial epilepsies. These epilepsies are presented according to the age of onset, starting from the neonatal period.

SCIENTIFIC TALKS

DAY 1, FRIDAY- 8 NOVEMBER 2024

Prof. Amna Al Futaisi

MD, FRCPC, FRCPCH

Prof. Amna Mohammed Al Futaisi is a Professor and Senior Consultant at the Sultan Qaboos University- College of Medicine and Health Sciences (SQU-COMHS) and University Medical City-Sultan Qaboos University Hospital (UMC SQUH) specializing in Pediatric Neurology and Pediatric Neuro-electrophysiology and Epilepsy. She is the President of the Oman League Against Epilepsy, Chairperson of Pediatric Neurology Program-Arab Board, Member of the pediatric council in the Arab Board of Medical Specialization, Founding member of GCC Pediatric Neurology Society, member of the Oman National Delegate Asian Oceanian Child Neurology Association and a board member of the Oman Neurology Society. Prof. Amna has an interest in clinical research in pediatric neurology, neurogenetics, cerebral palsy, and epilepsy, with manypublications in peer-reviewed journals.

Vitamin responsive epilepsies: Prof. Amna Al Futaisi

Vitamin-responsive epilepsies are a group of rare, treatable seizure disorders that respond to specific vitamin supplementation, often with significant clinical improvement. These conditions can present with diverse seizure types, ranging from early infantile epileptic encephalopathies to more subtle, treatment resistant epilepsy. The identification of these conditions is crucial, as early recognition and treatment can prevent neurological deterioration and improve quality of life. This presentation will focus on key vitamin deficiencies linked to epilepsy, including pyridoxine (vitamin B6), folinic acid, and biotin, with an emphasis on the pathophysiology, clinical presentations, diagnostic approaches, and therapeutic interventions.

Dr. Iman Al Lawati

MD, MRCP

Dr. Iman Al Lawati is a Consultant neurologist and Multiple sclerosis (MS) specialist at Khoula Hospital, where she oversees the MS care unit. She has authored several publications in her field and has participated as an investigator in numerous clinical trials for MS in the UK. Her primary research interest focuses on pregnancy and lactation among MS patients.

Navigating Pregnancy and Lactation in Multiple Sclerosis-Challenges and Strategies: Dr. Iman Al Lawati

This presentation will explore the unique challenges faced by women with multiple sclerosis (MS) during pregnancy and lactation. We will discuss the latest research on disease management, medication safety, and the impact of hormonal changes on MS progression. Attendees will gain insights into best practices for supporting maternal and infant health, addressing patient concerns, and optimizing care strategies.

SCIENTIFIC TALKS

DAY 1, FRIDAY- 8 NOVEMBER 2024

Dr. Nabil Al Macki

MRCPCH, FRCP-C

Dr. Nabil Al Macki is a Senior consultant Pediatric neurologist. He completed Pediatric neurology training at McGill University 2004- 2009 and Fellowship in pediatric neurophysiology. He has special interests in intractable epilepsies, neurogenetic and neurometabolic disorders. Dr. Nabil is a member in an international commission on medical therapy from the international League Against Epilepsy (ILAE) Task force for dietary therapy.

Pediatric neuro-demyelinating syndromes: Dr. Nabil Al Macki

Neuro- immune disorders of the central nervous system are a rapidly expanding field. There are several childhood demyelinating disorders based on clinical presentations, radiological features and the presence of autoantibodies. Our understanding of the pathobiology, classification, treatment, and prognosis of acquired demyelinating disorders in children is rapidly growing.

Dr. Yasser Al Malik

MD, FRCPC

Dr. Yaser Al Malik is an Associate Professor of Neurology and Associate Dean of Academic affairs at College of Medicine, King Saud bin Abdulaziz University for Health sciences, Riyadh, Saudi Arabia. He is also a Consultant Neurologist and head of Multiple sclerosis/Neuroimmunology division, Neurology department at King Abdulaziz medical city in Riyadh. He serves as the head of MS Chapter at Saudi Neurology Society. Dr. Al Malik completed his residency training in adult neurology at University of Calgary, Canada in 2014. He has 2 Fellowships: in Multiple Sclerosis and Neuroimmunology, and in Clinical Neurophysiology (2016-2017). He has a Master's degree in Medical Education (2021).

Modern therapies of Multiple sclerosis: Dr. Yasser Al Malik

This presentation explores the latest advancements in the treatment of Multiple Sclerosis (MS), highlighting the evolution of therapeutic strategies over recent years. We will examine the spectrum of modern disease modifying therapies (DMTs), emphasizing their mechanisms of action, efficacy, and safety profiles. Additionally, we will discuss the role of personalized medicine in MS management, including the integration of biomarkers and patient-specific factors in treatment decisions. The presentation will also address emerging therapies and future directions in MS research, aiming to improve patient outcomes and quality of life.

SCIENTIFIC TALKS

DAY 1, FRIDAY- 8 NOVEMBER 2024

Dr. Dina Dababneh

MD

Dr. Dina Dababneh is an Assistant Professor of Neurology at Columbia Irving Medical Center in New York. Dr. Dababneh has a sub-specialization in Multiple Sclerosis. Her clinical practice includes all types of neurological disorders with expertise in Multiple Sclerosis. Dr. Dababneh won multiple awards for outstanding professional and research skills.

Updates on MOGAD disease: Dr. Dina Dababneh

In this presentation, the historical perspective of Myelin Oligodendrocyte Glycoprotein Associated Disorders will be discussed, in addition, will discuss clinical phenotypes and approach to differentiating MOGAD from other demyelinating disorders, approach to diagnosis and updates on treatment.

Dr. Sarosh Irani

BMBCh MA (Oxon) Dphil FRCP FEAN

Prof. Sarosh Irani is a clinician-scientist who established the Oxford Autoimmune Neurology Group and is now Professor of Neurology and Neurosciences at the Mayo Clinic, Florida. His contributions to the field have been the discovery of LGI1 and CASPR2 antibodies, their related phenotypes in particular faciobrachial dystonic seizures, clinical and serological descriptions of other autoimmune encephalitis and NMOSD patients, and HLA associations. Dr. Sarosh trained at and completed his PhD in Clinical Neurology at Oxford University (DPhil) and, subsequently, residency training in neurology in Oxford, followed by a Fulbright Fellowship in multiple sclerosis and autoimmune neurology in UCSF, USA. He has extensive experience in diagnosing and managing a variety of autoimmune neurological conditions. He has published & >200 peer-reviewed publications and is Associate Editor at the journal Brain.

Autoimmune Encephalitis Update: Dr. Sarosh Irani

Autoimmune encephalitis defines brain inflammation caused by a misdirected immune response against self-antigens expressed in the central nervous system. It comprises a heterogeneous group of disorders that are at least as common as infectious causes of encephalitis. The rapid and ongoing expansion of this field has been driven by the identification of several pathogenic autoantibodies that cause polysymptomatic neurological and neuropsychiatric diseases. These conditions often show highly distinctive cognitive, seizure and movement disorder phenotypes, making them clinically recognizable. Their early identification and treatment improve patient outcomes and may aid rapid diagnosis of an underlying associated tumour. Here we summarize the phenotypes, investigations and outcomes of most common forms of AE – in particular LGI1 and NMDAR antibody associated syndromes

SCIENTIFIC TALKS

DAY 1, FRIDAY- 8 NOVEMBER 2024

Dr. Ammar Al Obaidy

MD, FIBMS(Neuro I.), MRCP(UK), FRCP(Glasg)

Dr. Ammar Alobaidy is a Behavioral Neurologist at Sultan Qaboos University Hospital in Muscat, Oman. He completed the Iraqi Board of Neurology in 2006 and Behavioral Neurology Fellowship in 2012, from University of Toronto, Canada. He was awarded the Membership of the Royal Colleges of Physicians of UK in 2015 and the Fellowship of the Royal College of Physicians and Surgeons of Glasgow in 2017. He established the Memory Clinic in 2013, for the first time in Oman. He has many publications and international participations. His developed the "Consortium to Establish a Registry for Alzheimer's Disease (CERAD) - Arabic Version", and working on adding a novel executive and visuospatial functions assessment tool to CERAD Arabic version, including a Functional MRI brain mapping.

Rapidly progressive dementias: Dr. Ammar Al Obaidy

Rapidly progressive dementias (RPDs) are a group of heterogeneous disorders that include immune-mediated, infectious and metabolic encephalopathies, as well as prion diseases and atypical rapid presentations of particular neurodegenerative disorders, namely Lewy Body disease and early onset Alzheimer disease, among others. Awareness of possible RPD aetiologias, syndromes and diagnostic work-up protocols will help clinicians to establish an early, accurate diagnosis, thereby reducing morbidity and mortality, especially in immune-mediated and other potentially reversible dementias. To identify treatable causes of RPD, the approach for diagnostic work-up must include MRI and analyses of blood and cerebrospinal fluid, and further diagnostics might be indicated in unclear cases. Therapeutic options for many non neurodegenerative causes of RPD are already available; disease-modifying therapies for neurodegenerative RPDs are an important focus of current research and could become a treatment option in the near future.

Dr. Hamed Al Sinawi

MD, FRCPsych

Dr. Hamed AL Sinawi is Senior consultant Psychiatrist and the Dean of department of Behavioral Medicine, Sultan Qaboos University. He is the founder and Chairman of Oman's Alzheimer's Society and a member of the national bioethics committee.He specializes in Geriatric Psychiatry and became a fellow of the Royal college of Psychiatrist,UK in 2011 .His special interest is in cognitive impartment, mood disorder and medical education.

Management of behavioral symptoms in dementia: Dr. Hamed Al Sinawi

Behavioral symptoms in dementia often pose challenges in diagnosis and management and also contribute to caregivers stress and burnout. This presentation will discuss risk factors or behavioral changes, common clinical features, how to detect them and what are the evidence-based interventions that can work. We will discuss both pharmacological and behavioural interventions and use case studies to illustrate the different approaches. Care givers education is key in managing behavioural disorders in dementia as well as caregivers emotional and psychological support as both are shown to reduce caregivers' stress.

SCIENTIFIC TALKS

DAY 2, SATURDAY- 9 NOVEMBER 2024

Dr. Areeba Wasim

MBBS, FCPS Pediatrics, FCPS Pediatric Neurology, MRCPCH UK

Dr Areeba Wasim is a Specialist Pediatric Neurologist currently working in Sultan Qaboos University Hospital Muscat, Oman. She is a graduate of King Edward Medical University Lahore, Pakistan and completed her Pediatric Residency from Mayo Hospital affiliated with King Edward Medical university Lahore Pakistan. Following her passion in Child Neurology, she completed her fellowship in Child Neurology from University of Child Health Sciences and Children Hospital (UCHS) Lahore, Pakistan followed by post-fellowship clinical and research.Her areas of special interest are Childhood Headache and Stroke, Developmental and Epileptic Encephalopathy, Neurogenetics and Neuroimmunology.

Headaches in children: Dr. Areeba Wasim

Headache is one of the common causes of missed school days and one of the most common neurological disease-causing morbidity in children. Migraine is one of the most frequently encountered primary headache disorders affecting nearly 5-40% of the pediatric population with no gender predilection before puberty yet there are other secondary causes of headache to ponder. Identification of red flags in headache via structured systemic approach is mainstay to exclude life threatening and progressive CNS emergencies. In conclusion, Childhood Headache is a worldwide health issue distressing the quality of life; implementation and execution of strategies (Felt Need , Observed Need) to properly manage childhood headaches can alter the lifelong outcome of these children.

Dr. Tariq Al Araimi

MD. ABIM, FRCPC, MHPE

Dr. Tariq Al Araimi is a Consultant Rheumatologist, internist and educator at the Royal Hospital in Oman. He is the former Vice President of OSR and currently a board member at Oman Society of Rheumatology (OSR). Trained at the University of Toronto in Internal Medicine and Rheumatology. Dual board certification in Rheumatology and Internal medicine by The Royal College of Physicians and Surgeons of Canada(RCPSC) and the American Board of Internal Medicine(ABIM). He currently also holds a Master's Degree in Health Professions Education (MHPE).

Updates on giant cell arteritis management: Dr. Tariq Al Araimi

Giant Cell Arteritis (GCA) is a chronic vasculitis primarily affecting large and medium-sized arteries, with significant morbidity if not promptly diagnosed and managed. This lecture will provide an update on the latest advancements in GCA management, focusing on three key areas but mainly pharmacological treatment and highlighting briefly updates in GCA classification criteria and long-term monitoring strategies. The discussion will cover new treatment modalities, in particular the use of corticosteroids and emerging biological/sDMARDs therapies tailored to improve patient outcomes and minimize side effects. Additionally, we will highlight briefly strategies for monitoring disease activity, managing relapses, and addressing long-term patient care. This session aims to equip participants with the knowledge needed to implement evidence-based up to date practices in the management of GCA.

SCIENTIFIC TALKS

DAY 2, SATURDAY- 9 NOVEMBER 2024

Dr. Alessandro Terruzi

MD, OMCEOB Italy

Dr. Terruzzi is currently the Head of the Neurology Department at Mediclinic City Hospital and the Clinical Lead and Head of the Mediclinic Comprehensive Stroke Center at City Hospital in Dubai (UAE). Dr Terruzzi trained at the University of Medicine and Surgery of Milan Bicocca in Italy, where he received Master's Degree in Cerebrovascular Diseases. He worked as a stroke neurologist at the Neuroscience Department of Manzoni Hospital. He moved to Dubai in 2017 as a Consultant Neurologist. Since 2019, he is an Adjunct Clinical Associate Professor at Mohamed Bin Rashid University, Dubai. Dr.Terruzzi's primary interests are diagnosing and treating headaches and cerebrovascular disorders.

Medication overuse headaches: Dr. Alessandro Terruzi

Medication-overuse headache (MOH) is defined as a headache happening on ≥ 15 days a month and overusing one specific type of acute attack medication consecutively for over three months.

It is a far more prevalent condition than expected, with a prevalence ranging from 0.5 to 7.2% in the general population but up to 50% among chronic headache patients in tertiary headache centres. It is one of the most common causes of chronic daily headaches. Pathophysiology is not entirely understood, and proper management still needs to be universally agreed upon, with different protocols to be reviewed. However, ultimately, MOH management cannot be pharmacological only. It requires a multifaceted and patient-centred approach that involves patient education, behavioural interventions, withdrawal of overused medication, and initiation of preventative medication.

Dr. Abdulrazaq Al Bilali

MBBS, FRCPC, MSc, MHA

Dr. Abdulrazaq Al Bilali is a Consultant Neurologist and Headache Specialist at King Saud University Medical City, Riyadh. He is an Assistant Professor of Medicine at King Saud University, Riyadh and Head of the Saudi Headache Chapter. He did his Neurology residency training and Headache fellowship at the University of British Columbia, Vancouver, Canada

Migraine - Modern therapies: Dr. Abdulrazaq Al Bilali

Successful preventive treatment of migraine reduces disease burden and improves quality of life. Many pharmacologic and nonpharmacologic treatment options are available for the prevention of migraine, including newer therapies aimed at the CGRP pathway as well as older treatments with good evidence for efficacy. Multiple treatment trials may be required to find the best preventive for an individual patient.

SCIENTIFIC TALKS

DAY 2, SATURDAY- 9 NOVEMBER 2024

Dr. Mossaed Al Yahya

MD

Dr. Mossaed Al Yahya is a consultant neurologist, neuromuscular and neurooncology specialist at King Faisal Specialist Hospital and Research Center. He obtained his MD degree from King Saud University in the Kindgdom of Saudi Arabia in 2013 following which he completed neurology residency and neuromuscular fellowship programs at Case Western Reserve University in Cleveland. He then completed another fellowship in Neuro-oncology at the University of Virginia.

Autonomic neuropathy and postural orthostatic tachycardia syndrome: Dr. Mossaed Al Yahya

Autonomic neuropathies represent a group of disorders that affect the autonomic nervous system: either sympathetic or parasympathetic neurons or both. They can be acquired or hereditary. When occurring in isolation, the diagnosis can be challenging. Postural orthostatic tachycardia syndrome results from dysregulation of the autonomic system and typically affects young women. In this lecture, a brief overview of autonomic neuropathies and postural orthostatic tachycardia syndrome will be discussed.

Dr. Abu Baker Madani

MD. FRCP Canada

Dr. Abubaker Al Madani is a Consultant and Head of Neurology Department at the Rashid Hospital and an Associate Professor at the Mohammed bin Rashid University of Medicine and Health Sciences, Dubai, UAE. He did his Neuromuscular fellowship and neurology residency at the University of Toronto and received his FRCPC from the Royal College of Canada. He is the Vice President of Emirates Neurology Society.

Neuromuscular crisis: Dr. Abu Baker Madani

- Review list of neurological disease that causes potential rapidly progressive weakness.
- Clinical symptomatology and subtypes
- Good and bad prognostic signs
- Updates in acute treatment

SCIENTIFIC TALKS

DAY 2, SATURDAY- 9 NOVEMBER 2024

Dr. Fatema Al Omrani
MD. FRCPC

Dr. Fatema Juma Mohammed Al-Amrani is a Pediatric Neurology Consultant affiliated with the Child Neurology Unit at the Child Health Department in Sultan Qaboos University Hospital (SQUH), Muscat, Oman. Dr. Al-Amrani completed her M.D. degree in 2009 from Sultan Qaboos University and Pediatric Neurology Residency at McGill University in Montreal, Canada (2013-2018). Then she pursued a Fellowship in Pediatric Neuromuscular Disorders from the renowned SickKids Hospital at the University of Toronto in 2020.

Approach to floppy infant: Dr. Fatema Al Omrani

Hypotonia is a condition that presents as "floppiness" in infants. It can result from a wide range of neurological and non-neurological disorders, requiring a comprehensive approach for diagnosis and management. Evaluating a floppy infant involves distinguishing between central and peripheral causes of hypotonia, which can be challenging.

Key steps in the approach include:

1. History and Physical Examination: A thorough history, including prenatal and perinatal details, helps identify risk factors and underlying causes. Physical examination assesses muscle tone, strength, reflexes, and developmental milestones.
2. Neurological Evaluation: This helps differentiate central hypotonia (caused by a lesion in the brain or spinal cord) from peripheral hypotonia (caused by a lesion in the nerves, neuromuscular junction, or muscles). Central hypotonia is typically associated with developmental delays, while peripheral hypotonia often presents with weakness and reduced reflexes.
3. Investigations: After clinical evaluation, targeted investigations such as neuroimaging, genetic testing, metabolic studies, and electromyography (EMG) may be required to narrow down the diagnosis. 4. Management: Treatment is guided by the underlying cause and may include physical therapy, occupational therapy, and medical interventions. Prompt diagnosis and intervention are critical to optimizing developmental outcomes for floppy infants.

Dr. Mossaed Al Yahya
MD

Dr. Mossaed Al Yahya is a Consultant Neurologist, neuromuscular and neuro-oncology specialist at King Faisal Specialist Hospital and Research Center. He obtained his MD degree from King Saud University in the Kingdom of Saudi Arabia in 2013 and Neurology residency and Neuromuscular fellowship degrees at Case Western Reserve University in Cleveland as well as another fellowship in Neuro-oncology at the University of Virginia.

Modern therapies of myasthenia gravis: Dr. Mossaed Al Yahya

Myasthenia gravis is an autoimmune neuromuscular disorder that affects neuromuscular junction. It results in fatigable weakness and can affect the ocular, bulbar and limb muscles. Therapies for myasthenia gravis have evolved and recently new medications were approved that target inhibition of complement system and the IgG receptor FcRn. In this lecture, the modern therapies of myasthenia gravis will be discussed.

SCIENTIFIC TALKS

DAY 2, SATURDAY- 9 NOVEMBER 2024

Dr. Ashraf El Mitwalli
MSc., MD

Dr. Ashraf El Mitwalli received Master of Science degree in Neurology and Psychological Medicine from Mansoura School of Medicine, Egypt in 1996. He did fellowship at the University of Texas at Houston at the Stroke program of Memorial Hermann Hospital to complete the clinical part of Neurology medical doctorate from 1999 to 2001 under the supervision of Dr. Andrei Alexandrov and Prof. James Grotta. He worked as Senior Consultant, Professor of Neurology and the Head of the Cerebrovascular team at the University of Mansoura, Neurology Department, Egypt. He is currently Senior Consultant Neurologist at Khoula Hospital, Muscat, Oman.

Stroke in young adults and children: Dr. Ashraf El Mitwalli
Stroke in young adults remains a growing problem worldwide. Young adults are a heterogeneous group of patients whose stroke etiology profile is much different than older stroke patients. Such individuals require a careful clinical evaluation to better understand the stroke mechanism and thus optimize the secondary stroke prevention plan. A technique of evaluation from the 'heart to head' provides a framework for the clinical approach to these unique patients. Pediatric stroke is a rare entity. It is often diagnosed with significant due to the subtleness of signs and symptoms, therefore, are frequently undiagnosed or misdiagnosed. Clinicians should be familiar with risk factors for pediatric stroke and appropriate prevention strategies as will as the acute management in neonates and children. Thrombolytic therapy and mechanical thrombectomy are mainly conducted on a case-by-case basis.

Prof. Arunodaya Gujjar
MBBS, DM, FRCP

Prof. Arunodaya R Gujjar is currently a Professor of Neurology at the Sultan Qaboos University Muscat. His areas of interest include Neurocritical Care, Stroke, Electrophysiology, Wilson disease and TeleStroke. He completed his training in Neurology from the National Institute of Neurosciences at India (1990) and Fellowship in Neurocritical Care from the Washington University Medical School, St Louis, USA (1997). In the recent past, his team was awarded national funding for developing TeleStroke in Oman

Approach to ischemic strokes due to multiple mechanisms: Prof. Arunodaya Gujjar
Ischemic stroke (IS) is a heterogeneous condition with varied mechanisms. Some patients have more than one stroke mechanism coexisting, irrespective of the mechanism of the incident stroke. This presentation attempts to describe its prevalence, clinical implications, approach to management and possible preventive measures.

SCIENTIFIC TALKS

DAY 2, SATURDAY- 9 NOVEMBER 2024

Dr. Ahmed Al Azri

MD, B.Sc., M.Sc., MRCSI, FRCSC(C) Neurosurgery

Dr. Ahmed Al Azri is a Neurosurgeon, Consultant & Head of Department of Neurosurgery at Khoula Hospital. He is an affiliated ENT Program Trainer at OMSB. He graduated from the Sultan Qaboos University in 2005, completed his MCCEE in Canada, MRCSI in Ireland, ECFMG in USA, MSc from McGill University in Canada, and FRCSC – Neurosurgery in Canada in 2017. He completed a course on Preparation of Leaders in Managing Healthcare Institutions in Oman in 2024. He received the Award of Excellence from the Khoula Hospital, Ministry of Health.

Current treatment of non-traumatic SAH: Dr. Ahmed Al Azri

Aneurysmal subarachnoid hemorrhage is a significant global public health threat and a severely morbid and often deadly condition. The recommendations present an evidence based approach to preventing, diagnosing, and managing patients with aneurysmal subarachnoid hemorrhage, with the intent to improve quality of care and align with patients' and their families' and caregivers' interests. The recommendations are based on the current published data for the management of aneurysmal subarachnoid hemorrhage.

Dr. Caline El Jadam

MD, DFMS

Dr. Caline Jadam is a Consultant Neurologist at American Center for Psychiatry and Neurology, Abu Dhabi. She graduated as a neurologist in 2014 from Saint Joseph University / Hôtel Dieu de France, Lebanon and holds a fellowship in critical care neurology from Pitié-Salpêtrière hospital in Paris, France. She also completed a Fellowship in Neurophysiology and Epilepsy UPMC-Sorbonne University, Paris France. Dr Caline holds academic and teaching positions as an assistant professor in Balamand University, Faculty of Medicine, Lebanon.

Management of raised ICP: Dr. Caline El Jadam

The talk will discuss management of raised intracranial pressure, and will highlight detection and diagnosis, as well as etiologies and medical management and treatment.

SCIENTIFIC TALKS

DAY 2, SATURDAY- 9 NOVEMBER 2024

Dr. Mahmood Al Hinai
MD, FRCPI

Dr. Mahmood AL-Hinai, Consultant Adult Neurologist and Movement Disorder at Khoula Hospital in Muscat, Oman. He is the Deputy Head of Neurology Department at Khoula Hospital and is General Secretary at the Oman Neurology Society. Graduating from Sultan Qaboos University Medical School, he pursued his residency through the Oman Medical Specialty Board (OMSB), Specialty certificate from The Arab Board of Health Specialization (ABHS) and Membership of the Royal College of Physicians of Ireland (MRCPI). He completed a fellowship in general neurology at the Royal College of Physicians of Ireland. He is a member International Parkinson and Movement Disorder Society.

Approach to shaky hands: Dr. Mahmood Al Hinai
Tremor is defined as an involuntary, rhythmic, and oscillatory movement of a body. Tremor is the most common of all movement disorders. The most common distinction is based on the activating conditions (ie, at rest versus action), but I will address in my talk a new classification and etiological scheme which has been proposed by the International Parkinson and Movement Disorder Society. We will review recent research highlighting the neurophysiological mechanisms underlying various types of tremors, including essential tremor and Parkinsonian tremor. We will touch on innovative treatment options, including pharmacological therapies, deep brain stimulation, and emerging non-invasive techniques such as focused ultrasound. Attendees will gain insights into the evolving landscape of tremor management, aiming to improve patient outcomes through structured treatment approaches.

Dr. Erik Krause
MD, ABPN

Dr. Erik Krause is a neurologist with specialization in Movement disorders. He trained in Neurology at Saint Louis University and for Movement disorder fellowship from University of Texas at Houston McGovern Medical School. His areas of interest include Parkinson's disease, tremors, dystonia, botulinum toxin therapy, and deep brain stimulation programming. In 2019, he became a faculty member of the University of Texas Dell Medical School in Austin, TX.

DBS for movements disorders: Dr. Erik Krause
This presentation will be a basic overview discussing deep brain stimulation (DBS) for common movement disorders. DBS is standard of care therapy used most often for advanced essential tremor, dystonia, and Parkinson's disease. There is well established evidence supporting its use which will be reviewed during this talk. Since its adoption into practice in the 1990's, it has undergone innovative changes expanding surgical techniques and programming options. The goal of this presentation is to review the history and background of DBS, but also provide real world clinical applications when approaching potential candidates for this treatment option. This includes identifying the correct candidate, knowledge of the surgery, and postoperative DBS programming for the general neurologist.

SCIENTIFIC TALKS

DAY 2, SATURDAY- 9 NOVEMBER 2024

Dr. Wejdan Hakami
MD, SBP, CABP, JBP, SBPN

Dr. Wejdan Hakami is a Consultant in Pediatrics and Pediatric neurology, with a specialization in Pediatric Movement Disorders. She is the head of Pediatric Neurology Division at Prince Sultan Military Medical City in Riyadh, Saudi Arabia. Dr. Hakami completed a Pediatric Movement Disorders Fellowship at Phoenix Children's Hospital in the United States. Her interests primarily focus on genetic and autoimmune movement disorders, as well as those associated with neurodegenerative and metabolic conditions.

Phenomenology of Movements Disorders in Children: Dr. Wejdan Hakami

This presentation explores the phenomenology of pediatric movement disorders, highlighting the critical need to clarify specific patterns to enhance diagnostic accuracy. Recognizing these patterns is vital for distinguishing between developmental and neurological disorders, thereby preventing unnecessary or inappropriate treatments, reducing the risk of harm, and improving management outcomes. By identifying distinct movement disorder patterns, we promote early detection especially of treatable conditions enabling timely interventions that can significantly improve outcomes and quality of life for affected children. Furthermore, understanding the complex interplay of neurological and non neurological features, along with variable phenotype-genotype correlations, is essential for comprehensive understanding and effective management. Key topics addressed will include disentangling phenomenology concerning temporal patterns, identifying causes of acute or subacute onset cases, and employing a stepwise approach for chronic and complex movement disorders.

SYMPOSIUM TALKS

DAY 1, FRIDAY- 8 NOVEMBER 2024

Pfizer Symposium

Moderator: Dr. Ahmed Al Qassabi
Speaker: Dr. Taoufik Alsaadi (UAE)
Chief Medical Officer, Chair of the Neurology Department, American Center for Psychiatry and Neurology (ACPN)Abu Dhabi, UAE. Dr. Alsaadi is currently the President of the Emirati League against epilepsy and the Chair of the ILAE Commission for Epilepsy in the Elderly. He serves as a member of the Guideline Development Group (GDG) for the WHO. He also serves on the Editorial Board for the BMC Journal of Neurology and Journal of Neurosciences. He has authored and co-authored more than 85 papers and book chapters and has been peer reviewed for more than 15 scientific journals.

> **How can we harness Rimegepant in clinical practice today and into the future?**

Novartis Symposium

Moderator: Dr. Abdullah Al Asmi
Speaker: Dr Iman Al Lawati (Oman)
Dr. Lawati is a consultant neurologist and multiple sclerosis (MS) specialist at Khoula Hospital, where she oversees the MS care unit. She has authored several publications in her field and has participated as an investigator in numerous clinical trials for MS in the UK. Her primary research interest focuses on pregnancy and lactation among MS patients.

> **Pioneering Precision with Kesimpta: The first and only self-administered anti-CD20 therapy in MS**

Novartis Symposium

Speaker: Dr Nabil Al Macki (Oman)
Dr. Nabil Al Macki is a senior consultant pediatric neurologist. He obtained his medical degree from Sultan Qaboos University and later completed the pediatric neurology residency program at McGill University 2004- 2009.
Dr. Nabil proceeded his career with a fellowship in pediatric neurophysiology. He has special interests in intractable epilepsies, neurogenetic and neurometabolic disorders. Dr. Nabil was a member in an international commission on medical therapy from the International League Against Epilepsy (ILAE) Task force for dietary therapy. He also has many publications in international journals and presented at national and international conferences.

> **Signs of SMA**

SYMPOSIUM TALKS

DAY 1, FRIDAY- 8 NOVEMBER 2024

AstraZeneca Symposium

Moderator: Dr. Abdullah Al-Salti
Speaker: Dr. Areej Bushnag (KSA)
Dr. Areej Bushnag is a highly experienced neurologist based in Jeddah, Saudi Arabia. With over a decade of clinical experience, she currently serves as a Consultant Neurologist at King Faisal Specialist Hospital and Research Center. She has previously worked at the International Medical Center and King Abdullah Medical Complex. Dr. Bushnag earned her medical degree from King Abdulaziz University, followed by specialized fellowships in Intraoperative Neurophysiological Monitoring and Neuromuscular Disease and Neurophysiology at the University of British Columbia in Canada. She holds certifications from the American Board of Electrodiagnostic Medicine and the Canadian Society of Clinical Neurophysiologists. Her research has been presented at major international conferences, and she has held leadership roles such as Chairman of the Neurology Department. Dr. Bushnag is an active member of several professional organizations, including the American Academy of Neurology and the Saudi Council of Neurology.

> **Focus on timing on Myasthenia Gravis Management**

DAY 2, SATURDAY- 9 NOVEMBER 2024

Pfizer Symposium

Moderator: Dr. Ali Al Balushi
Speaker: Dr. Deeb Kayed (UAE)

He is an Assistant Professor at the Mohammed Bin Rashid University (MBRU) of medicine & His practice is at The Integrated Rheumatology & Arthritis Centre in Dubai Health Care City. Dr. Deeb is an Independent Doctor, Consultant Neurologist, at The Mediclinic City Hospital Dubai in Dubai Health Care City. Dr Kayed's primary interest is in the management of patients with headaches, in particular migraine.

> **A single medication to both treat and prevent migraine: What is the evidence?**

Merck Symposium

Moderator: Dr. Abdullah Al Asmi
Speaker: Dr Iman Lawati (Oman)
Dr. Lawati is a consultant neurologist and multiple sclerosis (MS) specialist at Khoula Hospital, where she oversees the MS care unit. She has authored several publications in her field and has participated as an investigator in numerous clinical trials for MS in the UK. Her primary research interest focuses on pregnancy and lactation among MS patients.

> **Optimizing Treatment Approach for RRMS Patients**

SYMPOSIUM TALKS

DAY 2, SATURDAY- 9 NOVEMBER 2024

Biogen Symposium

Speaker: Dr. Areej Bushnag (KSA)
Dr. Areej Bushnag is a highly experienced neurologist based in Jeddah, Saudi Arabia. With over a decade of clinical experience, she currently serves as a Consultant Neurologist at King Faisal Specialist Hospital and Research Center. She has previously worked at the International Medical Center and King Abdullah Medical Complex. Dr. Bushnag earned her medical degree from King Abdulaziz University, followed by specialized fellowships in Intraoperative Neurophysiological Monitoring and Neuromuscular Disease and Neurophysiology at the University of British Columbia in Canada. She holds certifications from the American Board of Electrodiagnostic Medicine and the Canadian Society of Clinical Neurophysiologists. Her research has been presented at major international conferences, and she has held leadership roles such as Chairman of the Neurology Department. Dr. Bushnag is an active member of several professional organizations, including the American Academy of Neurology and the Saudi Council of Neurology.

When Improvement is Possible in Teens and Adults with SMA

Roche Symposium

Moderator: Dr Abdullah Al Asmi
Speaker: Dr Raed Al Roughani (Kuwait)

Dr Raed completed his neurology residency at the University of British Columbia and subsequently obtained the neurology certification from the Royal College of Physicians and Surgeons (Canada). He completed a fellowship in Multiple Sclerosis at the University of British Columbia. He is actively involved in research and he authored and co-authored more than 200 publications. Dr Raed was awarded the National Prize for scientific production in the field of medical science in 2017 and the best researcher award by Amiri Hospital in 2018. He is a founding member and the Secretary General of MENACTRIMS. He sits on the executive boards of various scientific associations, steering committees and advisory boards, mainly in the field of MS.

Ocrevus: A decade of preventing disability

WORKSHOPS

DAY 1, FRIDAY- 8 NOVEMBER 2024

Dr. Haifa Al Abri
MD, ABPN

Completed training of adult neurology residency at Case western Reserve university at Cleveland OH 2016 and completed the American board of psychiatry and neurology (ABPN) certification. Completed fellowship in neurophysiology and epilepsy in 2018 at case western and reserve university at Cleveland Ohio. Currently senior consultant neurologist at sultan Qaboos university hospital (SQUH). Running the epilepsy monitoring unit at SQUH. Interested in management of medical refractory epilepsy and epilepsy surgery evaluatuin and management. Highly involved in clinical teaching of medical students and residents. Currently the secretary of the Oman epilepsy society and Oman league against epilepsy

Dr. Wafaa Al Shehhi
MBBS, PN-SB, CSCN (EEG Diploma)

Dr. Wafaa is a Consultant, Child Neurologist, epileptologist and Electroencephalographer. She did her fellowship in pediatric epilepsy and EEG at the Hospital for Sick Children, University of Toronto, Canada. She is a member of the Pediatric Commission, ILAE, representative of ILAE- YES (Youth section), and the Vice president, Oman Epilepsy Society.

Seizure Recognition and Semiology: Dr. Haifa Al Abri & Dr. Wafaa Al Shehhi
Paroxysmal events are events that affect a person's awareness, sensation or motor function. The events can be classified as of neurological aetiology, cardiogenic or psychogenic. And under each etiology, there are different classifications. The workshop aims to show videos of different paroxysmal events of both Pediatric and adult population and help the audience to classify them accordingly.

Dr. Buthaina Sabt
MD, FRCS Glasgow

Practicing General ophthalmology and Neuroophthalmology at the Sultan Qaboos university Hospital. Senior Clinical Lecturer, College of Medicine & Health Sciences, Sultan Qaboos University. Muscat, Oman. Faculty and Programme Evaluation Committee member, Ophthalmology Residency Program, Oman Medical Specialty Board, Muscat, Oman M.B, B.Ch, BAO Royal College of surgeons of Ireland, Clinical Fellowship in Neuroophthalmology from Royal Victoria eye and ear Hospital, Dublin, Ireland.

Neuro ophthalmic emergencies you cannot afford to miss: Dr. Buthaina Sabt
Neuro-ophthalmological emergency disorders usually occur with symptoms of visual loss,diplopia,ocular motility impairment and anisocoria.
The workshop will cover common neuro ophthalmic emergency disorders and highlight the importance of early diagnosis to prevent death and blindness.

WORKSHOPS

DAY 2, SATURDAY- 9 NOVEMBER 2024

Dr. Iman Al Lawati
MD, MRCP UK

Dr. Lawati is a consultant neurologist and multiple sclerosis (MS) specialist at Khoula Hospital, where she oversees the MS care unit. She has authored several publications in her field and has participated as an investigator in numerous clinical trials for MS in the UK. Her primary research interest focuses on pregnancy and lactation among MS patients.

Dr. Khalsa Al Ramadhani
MD, DABR (NR), FRCP(C), FRCR(UK)

Dr. Khalsa Al Ramadhani is a neuroradiology consultant and the Head of the Department of Diagnostic and Interventional Services at Khoula Hospital in Muscat, Oman. She serves as the neuroradiology rotation supervisor for radiology residents and is the Deputy Chair of the Examination Committee for the Radiology Program at the Oman Medical Specialty Board. Additionally, Dr. Al Ramadhani is a member of the brain death task force, epilepsy surgery task force and the National Radiology Technical Committee in Oman.
Dr. Al Ramadhani has presented at national and international conferences and has contributed to various publications in radiology and neuroradiology. She plays a significant role in training residents from radiology, ENT, and ophthalmology at the Oman Medical Specialty Board and is a member of several radiology associations, including the RSNA, ASNR,ESNR and ARRS.

Mimics of Inflammatory Myelopathy: Dr. Iman Al Lawati & Dr. Khalsa Al Ramadhani
This workshop will focus on the mimics of inflammatory myelopathy, a challenging area that often requires careful consideration of various differential diagnoses. The session will cover a series of clinical case presentations highlighting diverse scenarios that can easily be mistaken for inflammatory myelopathy. Our Neuroradiologist will share invaluable tips and pearls regarding the interpretation of imaging MRI spine. This segment will emphasize key radiological features that can aid in distinguishing between inflammatory myelopathy and its mimics, enhancing your diagnostic acumen.

Dr. Ali Al Balushi
MD, ABPN

Dr. Ali K. Al Balushi is a consultant, vascular & interventional neurologist and currently head of department of neurology and stroke unit at Khoula Hospital, Oman. He obtained his medical degree from Sultan Qaboos University and completed neurology residency at St Louis University School of Medicine. He then completed fellowship in vascular neurology from Icahn School of Medicine at Mount Sinai and another fellowship in endovascular neurosurgery from Weill Cornell School of Medicine. He is board certified in Neurology and Vascular Neurology by the American Board of Psychiatry and Neurology. He serves as the associate program director for Oman Medical Specialty Board Neurology residency program. Dr. Ali is the Chairman of the Scientific Committee of the 4th Oman Neurology Conference.

Dr. Achint Krishna
MD, DM Neurology

Dr Achint Krishna graduated from MBBS in 2011 with distinction, following which he pursued MD in Internal Medicine. During the course of which he did his doctoral thesis in Asian Modification of Metabolic Syndrome. Following his graduation in 2014, he practiced Internal Medicine for 2 years. He pursued Residency in Neurology from 2016- 2019 and graduated Top of the class in the University. During the course he did his research on RESTLESS LEG SYNDROME in India. He also did multiple Paper presentations On Nonaka Myopathy. He worked In Aster India from 2019-2021. He has been a part of Aster Oman since 2021.

Stroke cases: Dr. Ali Al Balushi & Dr. Achint Krishna
Stroke is the second leading cause of death and the main leading cause of disability worldwide. The emergency evaluation and treatment of both ischemic and hemorrhagic strokes have evolved significantly over the past years. In this interactive workshop, different stroke cases will be presented and discussed with the audience with emphasis on the hyperacute management. This will be presented along with take-home messages after each case discussion.

SCIENTIFIC POSTERS

Poster 01

Pregnancy and Fetal Outcomes in Omani Women with Multiple Sclerosis: A Single Tertiary Center Experience

Abeer Mahmood Nasser A-Busaidi [1], Tahira Hasan Siddiqui [2], Thuraya Hila Al-Rawahi [3], Abdullah Al-Asmi [4], Ibrahim Al-Zakwani [5], Ahmed Al-Qassabi [2], Haifa Al-Abri [2], Arunodaya R. Gujjar [4]

[1] College of Medicine & Health Sciences, Sultan Qaboos University, Muscat, Oman
[2] Neurology Unit, Department of Medicine, Sultan Qaboos University Hospital, Medical University City, Oman
[3] Royal College of Surgeons in Ireland - Bahrain
[4] Neurology Unit, Department of Medicine, College of Medicine & Health Sciences, Sultan Qaboos University, Muscat, Oman
[5] Pharmacology & Clinical Pharmacy Department, College of Medicine & Health Sciences, and Pharmacy Department, Sultan Qaboos University Hospital, Sultan Qaboos University, Muscat, Oman

Background:
Multiple sclerosis (MS) is an autoimmune disease of the central nervous system (CNS). MS is more prevalent among the young, which has an implication for MS women during their childbearing age. The fertility rate of women with MS is reported to be lower than normal women. Pregnant MS patients have more obstetric complications compared to non-MS patients. Newborns of MS mothers are more likely to be delivered with poor fetal growth. There are limited options of disease-modifying therapies (DMTs) to be used during pregnancy and during lactation.

Objective:
This study aims to evaluate the fertility rate, obstetric complications, and fetal outcomes in Omani women with MS who attended the neurology clinic at Sultan Qaboos University Hospital (SQUH).

Methods:
This retrospective study included Omani MS patients who attended the neurology clinic at SQUH from the 1st of January 2007 till the 30th of June 2021. Demographic and clinical data were extracted from the electronic medical records system. Obstetric data and fetal outcomes were collected from the pregnancy green and fetus pink Omans' standard health information cards, respectively. The proposal was approved by the institutional review board.

Results:
We collected the data of 25 Omani women with MS who had 52 pregnancies. The 52 pregnancies resulted in 34 healthy deliveries, 13 miscarriages, and five ongoing pregnancies at the time of data collection. The 25 women had a fertility rate of about 2.6 children per woman, below the national figures of 3.6. Fifty-nine percent of the pregnant women did not have any obstetric complications during conception. Caesarian section and gestational diabetes were more common in MS mothers compared to the national figures. The mean birth weight and birth length of the offspring of MS mothers were 2.93 kgs and 49.71 cm, respectively, below the national statistics. However, the mean head circumference was 33.88 cm, similar to the national figure.

Conclusion:
Omani MS patients have a lower fertility rate compared to the national figures. Omani MS patients have a higher incidence of obstetric complications. The weight and length of MS patients' newborns were below average.

SCIENTIFIC POSTERS

Poster 02

Lymphopenia in Omani Patients with Multiple Sclerosis Treated with Dimethyl Fumarate

Ahmed Jaboob [1], Abdullah Al-Asmi [2], M. Mazharul Islam [3], Syed Rezvi [4], Iman Redha [5], Jaber Al-Khabouri [5], Ibrahim Al-Zakwani [6], Ahmed Al-Qassabi [7], Haifa Al-Abri [7], Arunodaya R. Gujjar [2]

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[3] Department of Statistics, College of Science, Sultan Qaboos University, Muscat, Oman
[4] Department of Family Medicine & Public Health, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman
[5] Neurology Department, Khoula Hospital, Muscat, Oman
[6] Pharmacology & Clinical Pharmacy Department, College of Medicine & Health Sciences, Sultan Qaboos University, and Pharmacy Department, Sultan Qaboos University Hospital, Muscat, Oman
[7] Neurology Unit, Department of Medicine, Sultan Qaboos University Hospital, Medical University City, Muscat, Oman

Background:
Dimethyl fumarate (DMF) is known to cause lymphopenia in treated multiple sclerosis (MS) patients. There is a dearth of research on DMF therapy in the Arab world, especially in Oman.

Objective:
This study aims to analyse the prevalence of lymphopenia among Omani MS patients and evaluate the clinical characteristics of DMF.

Methods:
In this retrospective study, we reviewed the medical records of Omani MS patients who were treated using DMF at two tertiary hospitals in Oman from February 2017 to February 2023. Their demographic, clinical, and laboratory data were retrieved and analyzed. Absolute lymphocyte count (ALC) values at baseline and at the last follow up, as well as the reasons for discontinuing DMF were collected. Descriptive and inferential statistical techniques were used for data analysis. Binary-logistic regression analysis was used to identify the risk factors for DMF-induced lymphopenia.

Results:
The subjects were 64 MS patients with the majority (40; 63%) were female. The DMF therapy was started at mean age of 33 ± 7.7 years. After administration of DMF, 14 (21.9%) patients developed 1–3 grades lymphopenia with the following breakup: grade-1: 5/64 (7.81%) patients; grade-2: 8/64 (12.5%) patients; grade-3: 1/64 (1.6%) patient. DMF was discontinued in 23 (36.0%) patients, mainly in response to adverse events or confirmed pregnancy. Female sex was the only significant predictor of DMF-induced lymphopenia ($p = 0.037$).

Conclusion:
Most Omani MS patients had mild lymphopenia (grades 1–2), like other regional and international reports. Early adverse events and pregnancy were the main reasons given for discontinuing DMF therapy.

SCIENTIFIC POSTERS

Poster 03

Effectiveness and Safety Profile of Fingolimod in Treating Omani Patients with Multiple Sclerosis: A Single Tertiary Centre Experience

Ghaida Khalid Hamed Al-Hashmi [1], Abdullah Al-Asmi [2], M Mazharul Islam [3], Ibrahim Al-Zakwani [4], Mehwish Butt [5], Ahmed Al-Qassabi [5], Haifa Al-Abri [5], Arunodaya R. Gujjar [2]

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[4] Pharmacology & Clinical Pharmacy Department, College of Medicine & Health Sciences, Sultan Qaboos University, and Pharmacy Department, Sultan Qaboos University Hospital, Muscat, Oman
[5] Neurology Unit, Department of Medicine, Sultan Qaboos University Hospital, Muscat, Oman

Background:
Fingolimod is one of the oral drugs used to treat multiple sclerosis (MS). However, there is limited information on its effectiveness and safety in the Omani population.

Objective:
The objective of the current study is to evaluate the effectiveness and safety of fingolimod in Omani MS patients.

Methods:
This retrospective real-world study included 65 Omani MS patients who received fingolimod therapy from 2012 to 2021 at a single tertiary centre in Oman. Various measures were used to evaluate the effectiveness and safety of fingolimod.

Results:
Out of 65 MS patients included in the study, 79% were female. The median duration of fingolimod use was 3.6 ± 2.5 years. The results of the last follow-up visit indicate that the median annualized relapse rate decreased by 84% and relapse-free rate (RFR) increased to 90%, with only a minimal (13%) increase in the expanded disability status. The median number of gadolinium-enhanced lesions in the brain and spine decreased significantly by 88% and 67%, respectively, while the new or enlarged T2 lesions in the brain significantly decreased by 62% ($p < 0.050$) over the treatment period. The most common side effect was bradycardia (32%). Patient age and age at treatment initiation were significant predictors of RFR ($p < 0.050$).

Conclusion:
This study suggests that the effectiveness and safety profiles of fingolimod in Omani MS patients are similar to those determined by standard clinical trials and real-world retrospective studies.

SCIENTIFIC POSTERS

Poster 04

Seasonal Variations in Multiple Sclerosis Relapses in Oman: A Single Tertiary Centre Experience

Rashid Al-Shibli [1], Abdullah Al-Asmi [2], M. Mazharul Islam [3], Fatema Al Sabahi [2], Amira Al-Amri [4], Mehwish Butt [5], Meetham Al-Lawati [1], Lubna Al-Hashmi [1], Jihad Al-Yahmadi [1]

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[2] Neurology Unit, Department of Medicine, College of Medicine & Health Sciences, Sultan Qaboos University, Muscat, Oman
[3] Department of Statistics, College of Science, Sultan Qaboos University, Muscat, Oman
[4] Department of Operation Management & Business Statistics, College of Economics and Political Science, Sultan Qaboos University, Muscat, Oman
[5] Neurology Unit, Department of Medicine, Sultan Qaboos University Hospital, Medical University City, Oman

Background:
The seasonal factors that influence multiple sclerosis (MS) relapses remain elusive.

Objective:
This study aims to investigate the seasonal variation of MS relapses in Oman and compare it globally.

Methods:
This retrospective study was conducted on MS patients at a tertiary hospital in Oman over an eight-year period (2007–2022). Demographic and clinical data of all MS patients were juxtaposed with the monthly weather data during this period, using descriptive and inferential statistical techniques.

Results:
Among the N = 183 MS patients studied, 508 relapses were recorded during the study period. The average number of relapses per patient was 2.8 (range: 1–15). There were significant seasonal variations in MS relapse rate, with the highest prevalence in the winter months of January and February. However, no correlation between MS relapses and other climatic parameters was found.

Conclusion:
The seasonal patterns of MS relapses in Oman are different from other parts of the world. Their influence should be considered in clinical practice. Our results highlight the importance of focusing on local weather variations, as well as the anomalous impacts of climate change, for which further studies are needed.

SCIENTIFIC POSTERS

Poster 05

Parental Stress Among Parents of Children with Epileptic Encephalopathy Treated at Sultan Qaboos University Hospital

Shima Alharasi [1], Amna Al-Futaisi [2], Jawaher Al Balushi [3], Aisha Alfudhaili [1], Shahad Alyarubi [1], Azza Al-Aadi [2], Tuqa Al Shidhani [3], Fatema Al-Amrani [4]

[1] College of Medicine and Health Science, Sultan Qaboos University, Muscat, Oman
[2] Department of Child Health, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman
[3] Oman Medical Specialty Board, Muscat, Oman
[4] Pediatric Neurology Unit, Department of Child Health, Sultan Qaboos University Hospital, Sultan Qaboos University, Muscat, Oman

Background:
Epileptic encephalopathy encompasses a range of neurological disorders characterized by persistent epileptic activity, which can lead to cognitive and behavioral impairments in children, necessitating specialized care. Parenting a child with epileptic encephalopathy often imposes a significant emotional and psychological burden on parents, leading to elevated stress levels. The unpredictable nature of seizures, the need for frequent medical interventions, and the stigma associated with this condition all further exacerbate this stress. Despite the profound impact of these challenges, research on parental stress among parents of children with epileptic encephalopathy remains limited.

Objective:
The aim of the study is to determine the prevalence of parental stress among parents of children with epileptic encephalopathy and better describe the stress characteristics of this group of parents. Furthermore, we aim to determine the common risk factors that could be associated with parental stress and specify the association between parent stress index scores and child disability scores.

Methods:
A cross-sectional study was conducted involving 99 parents of children under 12 years of age with epileptic encephalopathy, who received treatment at Sultan Qaboos University Hospital. The study collected sociodemographic information, clinical data of the children, and parental stress levels. The Parental Stress Index-Short Form (PSI-4) Arabic version was used to measure parental stress levels. Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) version 26, with a p-value of < 0.05 considered statistically significant.

Results:
The study found that 50.5% of the parents experienced clinically significant levels of stress, with 9.1% exhibiting high stress scores. Significant associations were observed between parental stress levels and factors such as school enrollment, housing type, and the number of medications the child was receiving. Conversely, no significant associations were found between parental stress and factors like the parent's age, gender, or monthly income. There was no association between the stress index scores and disability scores.

Conclusion:
Parental stress is one of the things that can negatively affect children with epileptic encephalopathy. It is important to find solutions for it to ensure a good and healthy life for these children and their families.

SCIENTIFIC POSTERS

Poster 06

Delay in Referral of Medically Refractory Epilepsy Patients to Epilepsy Centers in Oman and the Impact on their Lives

Leena Al Shandoudi [1], Haifa Al Abri [2], Murshed Al Foori [3]

[1] Internal Medicine Residency Training Program, Oman Medical Specialty Board, Muscat, Oman
[2] Neurology Department, Sultan Qaboos University Hospital, Muscat, Oman
[3] College of Medicine, Sultan Qaboos University, Muscat, Oman

Background:
Epilepsy is one of the most common serious neurologic conditions worldwide. Up to 30% of patients with epilepsy have drug resistant epilepsy (DRE), and they could suffer major socioeconomic and psychological consequences with increased risk of mortality. Only around 1% of them are evaluated at a full-service epilepsy center, and majority of these patients miss the opportunity to be evaluated by a multidisciplinary team. It is also observed that these patients are usually referred late to epilepsy centers, resulting in delay in identifying potential surgical candidates.

Objective:
The study aims to investigate the characters of patients with DRE, assess the delay in referral to epilepsy centers in Oman, and evaluate its impact on their lives.

Methods:
This is a cross-sectional retrospective study of patients with DRE evaluated at Sultan Qaboos University Hospital from 2016 to 2023. Data were obtained from the electronic medical records system, and long-term video electroencephalogram records from the adult epilepsy monitoring unit. Data were analyzed using the SPSS software. For descriptive purposes, categorized variables were described as percentages with confidence intervals. Continuous variables were presented as mean with standard deviation or median with inter-quartile range.

Results:
245 patients were evaluated over 7 years. 201 patients were confirmed to have DRE. 49% were females, and the median age was 31 years. The epileptogenic zone in the majority was the temporal lobe and the average period of referrals to an epilepsy unit was 9 years. 27 patients had a formal memory assessment, and 63% of them had memory issues. Of the 201 patients; 60 had undergone surgery, 99 were not surgical candidates, and 42 are still awaiting the completion of evaluation and logistics arrangements. 71% of the patients achieved seizure freedom 6-month post-surgery.

Conclusions:
Patients with DRE are usually referred late to epilepsy centers, missing the opportunity for early surgical evaluation. Most patients achieve significant seizure freedom after surgery. This study helps to guide educating neurologists about the current situation and the importance of early referral to epilepsy centers.

SCIENTIFIC POSTERS

Poster 07

Assessment of Nurses' Knowledge and Attitudes towards Epilepsy in Oman

Abdullah Al-Fahdi [1], Noor Al-Riyami [1], Azza Al Adi [2], Haifa Al Abri [3], Fatema Al Amrani [4], Amna Al-Futaisi [5]

[1] College of Medicine and Health Science, Sultan Qaboos University, Muscat, Sultanate of Oman
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[3] Department of Medicine, Sultan Qaboos University Hospital - University Medical City, Muscat, Sultanate of Oman
[4] Pediatric Neurology Unit, Department of Child Health, Sultan Qaboos University Hospital - University Medical City, Muscat, Sultanate of Oman
[5] Department of Child Health, College of Medicine and Health Science, Sultan Qaboos University, Muscat, Sultanate of Oman

Background:
Discrimination against individuals with epilepsy can significantly impact their mental health, social integration, and overall quality of life. Healthcare staff, especially those working with epilepsy patients, need sufficient knowledge and positive attitude. However, inadequate training can lead to misconceptions and negative attitudes among healthcare providers.

Objective:
This study aims to assess nurses' knowledge and attitudes towards epilepsy in Oman. Additionally, it assess their knowledge on seizure first aid.

Method:
A cross-sectional online survey was conducted from September 2023 to November 2023, including 575 nurses from various healthcare institutions across Oman. The questionnaire, developed from previous studies, expert input, and pilot testing, covered demographics, epilepsy awareness, attitudes, and first aid knowledge. Data were analyzed using descriptive statistics and Chi-square tests in SPSS 25.0.

Results:
The survey revealed that 85.7% of nurses correctly identified neurological factors as the main cause of epilepsy, and 96.9% supported professional medical management. However, 6.1% mistakenly believed epilepsy could be transmitted, and some supported alternative treatments like religious practices. Older and more experienced nurses had higher awareness levels ($p = 0.007$ and $p = 0.000137$). Regarding attitudes, 83.7% were comfortable working with epilepsy patients, and 91% were open to friendships, but only 50.1% would consider marrying someone with epilepsy. Specialty nurses had a more positive attitude (87.2%) than general nurses (76.6%) ($p = 0.042$). Nurses with over ten years of experience had better first aid knowledge (72.6%) ($p = 0.00001$).

Conclusion:
Nurses in Oman generally have good knowledge and supportive attitudes towards epilepsy, but misconceptions remain, particularly in personal relationships and first aid. Ongoing education is vital, especially for younger nurses, to address these gaps.

SCIENTIFIC POSTERS

Poster 08

Evaluation of QT dispersion in epileptic patients and its association with SUDEP risk

Rehab M. Hamdy [1], Ola H. Abd Elaziz [1], Rasha Sobhy El Attar [2], Hayam Abdel-Tawab [2], Fatma M. Kotb [3]

[1] Department of Cardiology, Faculty of Medicine (for girls), Al-Azhar University, Cairo, Egypt
[2] Department of Neurology, Faculty of Medicine (for girls), Al-Azhar University, Cairo, Egypt
[3] Department of Internal Medicine, Faculty of Medicine (for girls), Al-Azhar University, Cairo, Egypt

Background:
Mortality in epileptic patients was attributed to sudden unexpected death in epilepsy (SUDEP). The precise pathophysiology of SUDEP is not fully understood, yet prolongation of ventricular repolarization particularly QTc interval suggested to be one of the contributing risk factor for SUDEP.

Objective:
We aimed at evaluation of QTc and QT dispersion (QTD) in patients with epilepsy (both refractory and well-controlled epilepsy) and their association with the epileptic severity and sudden unexplained death (SUDEP) risk.

Methods:
The study included eighty epileptic patients (40 controlled epileptic patients and 40 refractory epileptic patients) compared to thirty non-epileptic volunteers as the control group (patients with history of cardiovascular comorbidities or exposure to antiarrhythmic drugs were excluded from the study). All participants were subjected to clinical evaluation including detailed epileptic history with assessment of SUDEP 7 risk, severity scale, 12 leads surface ECG to measure QTc & QTD, 24 h Holter monitoring to assess heart rate variability (HRV) parameters.

Results:
Controlled and refractory epileptic patients demonstrated increased average QTc and QTD values compared to control group. Refractory epileptic patients had a significantly higher incidence of abnormal QTD > 50 ms compared to controlled epileptic patients (32.5% vs. 90%, $p < 0.005$). Refractory epileptic patients with generalized form had significantly higher severity scale in addition to significantly impaired rMSSD and pNN50 compared to those with focal form (1072.7 ±722.7 vs. 429.1 ±180.4, $p <0.03$, 17.11 ±4.6 vs. 26.4 ±7.9 ms, $p<0.004$ and 2.9 ±1.8 vs. 7.8 ±4.1%, $p <0.003$ respectively). Among refractory epileptic patients, the duration of epilepsy, rMSSD and QTD significantly correlated with SUDEP-7 risk ($r2=0.199$, $p < 0.005$, $r2=0.623$, $p <0.0001$ and $r2=0.44$, $p < 0.0001$ respectively).

Conclusions:
The current study stands out the importance of evaluating QTc and QTD in 12-lead ECG recordings in epileptic patients and signifying their association with SUDEP-7 risk among refractory epileptic patients.

SCIENTIFIC POSTERS

Poster 09

Electrographic Significance of Periodic Discharges and Their Association with Etiology and Outcome in A Tertiary Care Hospital

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Background:
Periodic discharges in electroencephalograms (EEGs) represent rhythmic wave patterns and can indicate acute or subacute brain damage. Although they may predispose patients to seizures, not all are epileptiform.

Objective:
The study aimed to elucidate the frequency, etiological associations, and clinical outcomes of patients with electrographical periodic discharges within a tertiary care hospital setting.

Methods:
This retrospective observational cohort study spanned two years, from January 2021 to January 2023. It included patients aged 18 years and above with EEG-confirmed periodic discharges. Data, including demographics, symptoms, EEG findings, neuroimaging results, treatment, and outcomes, were collected and analyzed using SPSS version 22.

Results;
Of the 41 patients analyzed, 51.2% were female, with an average age of approximately 58.5 years. Generalized tonic-clonic seizures were the most common clinical presentation (48.8%), with ischemic stroke as the leading etiological factor (31.7%). Lateralized periodic discharges (LPDs) were the most common EEG finding. Notably, 34% of patients exhibited chronic imaging changes, primarily encephalomalacia and gliosis. The majority (87.8%) were discharged home, with a minority (12.2%) experiencing mortality, often associated with status epilepticus or metabolic encephalopathy.

Conclusion:
This study highlights the importance of recognizing periodic discharges in EEGs within the context of a tertiary care hospital. The findings of this study emphasize the potential gravity of periodic discharges, as indicated by mortality rates and functional outcomes. An improved understanding of these periodic discharges and their associated conditions can guide clinical decision-making and enhance patient care within tertiary care hospital settings.

SCIENTIFIC POSTERS

Poster 10

Knowledge, and Health-Related Quality of Life among Omani Adults Diagnosed with Epilepsy: A Cross-Sectional Study

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Background:
Epilepsy is a neurological disorder that significantly impacts quality of life. Understanding the knowledge and health-related quality of life (HR-QoL) of patients with epilepsy (PWEs) is crucial for improving their care. However, limited research has explored these aspects among Omani adults with epilepsy.

Objective:
This study aimed to measure the knowledge level and HR-QoL among Omani PWEs and investigate their correlation.

Methods:
A cross-sectional study was conducted on 200 Omani PWEs recruited from three tertiary hospitals in Muscat; (Sultan Qaboos University Hospital, Khoula Hospital and Armed Forces Hospital). Knowledge was assessed using the Epilepsy Knowledge Scale, and HR-QoL was measured using the Quality of Life in Epilepsy-31 tool. Descriptive statistics and inferential statistics (Pearson correlation coefficient, independent samples t-tests and One- way ANOVA) were employed.

Results:
More than half (52.5%) of the participants were males, aged between 18 and 75 years (M=33.29). The overall knowledge level was poor (mean score 7.81/19), and HR-QoL was low (mean score 56.55/100). A positive correlation was observed between knowledge and HR-QoL (r= 0.261, p=0.001). The independent samples t-test and One-way ANOVA identified a significant association between HR-QoL and gender, males show higher HR-QoL (M=59.26) compared to females (M= 53.55), employees have a better HR-QoL (M=59.57) compared to the unemployed (M=53.58), patients with other comorbidities report lower HR-QoL (M=50.94) compared to PWEs only (M=57.95), age group (>50 years) reported poor HR-QoL (M= 45.80) compared to other age groups. Individuals developed epilepsy disease in adolescence appeared to have a higher average HR-QoL score (M= 60.22, SD= ±14.72), patients who experienced the last epileptic seizure in more than 6 months (longer intervals) reported better HR-QoL (M= 60.24) all with (p-value ≤ 0.05).

Conclusion:
The study highlights the poor knowledge and lower HR-QoL among Omani PWEs. Improving understanding about epilepsy leads to better HR-QoL. This emphasizes the need for targeted educational programs and campaigns targeting patients, families and the public to improve knowledge, and improve HR-QoL for PWEs. Additionally, an interventional study to assess the impact of educational programs on enhancing patients' knowledge and HR-QoL is also warranted.

SCIENTIFIC POSTERS

Poster 11

The Clinical and Etiological Profile of Developmental and Epileptic Encephalopathy with Burst Suppression: A Tertiary Center Experience

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Background:
Developmental and epileptic encephalopathy (DEE) is a term that is used to describe epilepsy syndromes associated with developmental impairment that may be due to the underlying etiology or the superimposed epileptic activity, or both, while burst suppression (BS) is a specific electroencephalographic finding that can be seen among these patients.

Objective:
The aim of the study is to describe the clinical features of Omani patients with DEE-BS and compare the underlying etiologies.

Methods:
This is a retrospective descriptive cross-sectional study of patients diagnosed with DEE-BS at Sultan Qaboos University Hospital (SQUH), spanning the period of 14 years (2008-2022).

Results:
92 patients were included with an equal male to female distribution (1:1). Underlying etiologies included genetic disorders in 17/92 (18.5%), metabolic disorders in 14/92, (15.2%), structural abnormalities in 17/92 (18.5%), while 44/92 (47.8%) had an unknown etiology. Infantile age of onset was seen in 56.5% of patients, and neonatal onset in 39% with seizure as the presenting symptom in 83.7% of patients. Most common types of seizures were generalized tonic-clonic and myoclonic seizures, and intractable seizures were found in 64% of patients. High consanguinity rates were observed in genetic (70.6%) and metabolic (92.9%) etiologies. Around 58.7% of patients underwent genetic evaluation with conclusive results in 34.8%, mostly under metabolic and genetic etiologies. Genetic disorders included different phenotypes of DEE in 13/17 patients, with reported variants in STXBP1, SCN1A, SCN1B, KCNT1, KCNQ2, CYFIP2, SCN8A, UGP2, EEF1A2, CHD2 and SV2A genes. Common metabolic disorders involved were glycine encephalopathy in 4/14 patients and congenital disorders of glycosylation in 3/14. While the structural abnormalities found were commonly cortical malformations in 8/17 patients and hypoxic ischemic changes in 6/17.

Conclusion:
Our cohort of patients with DEE-BS commonly presented with seizures during the neonatal and infantile period. An underlying etiology could be determined in around 52.2% and included structural abnormalities, metabolic and genetic disorders, with the remaining having an unknown etiology. Thorough evaluation, including genetic work up when possible, is important to delineate the underlying etiology which in turn can allow for precise management options.

SCIENTIFIC POSTERS

Poster 12

The Relationship Between Epilepsy Control and the Duration of Nighttime Sleep and Afternoon Siesta

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Background:
The association between epilepsy control and the duration of sleep among people with epilepsy (PWE) is not well studied in Middle Eastern countries such as Oman.

Objective:
The study aims to describe the sleep habits of PWE in Oman and explore the association of their sleep habits at night and afternoon siesta with the level of seizure control achieved and antiseizure medications (ASMs) consumed.

Methods:
The subjects of this cross-sectional study were adult epilepsy patients attending a neurology clinic. Their sleep parameters were measured for one week using actigraphy. Home sleep apnea testing for one night was conducted to rule out obstructive sleep apnea (OSA).

Results:
A total of 129 PWE completed the study. Their mean age was 29.8±9.2 years, and their mean body mass index (BMI) was 27.1 kg/m2. There was no significant difference between the people with controlled and uncontrolled epilepsy as regards the duration of night sleep or afternoon siesta ($p = 0.24$ and 0.37, respectively). There was also no significant correlation between their nighttime sleep duration, afternoon siesta, and the number of ASMs they consumed ($p = 0.402$ and 0.717, respectively).

Conclusion:
The study revealed that the sleep habits of PWE with uncontrolled epilepsy who consumed more ASMs were not significantly different from those with controlled epilepsy who consumed fewer ASMs.

SCIENTIFIC POSTERS

Poster 13

Anti-N-Methyl-D-Aspartate Receptor (NMDAR) Encephalitis in A Young Pregnant Lady With Ten Years Follow up: A Case Report

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Background:
Anti-N-methyl-D-aspartate receptor (anti-NMDAR) encephalitis is a newly recognized autoimmune disease of the central nervous system that has an undetermined aetiology and multiple reported provoking factors. It is clinically characterised by the onset of psychiatric symptoms, seizures, memory disturbance, and cognitive decline.

Objective:
The aim of this study is to report a case of anti-NMDAR encephalitis in a pregnant woman.

Methods:
This is a case report.

Results:
Our reported case was a young, newly married woman in the first trimester of pregnancy who presented with purely psychiatric manifestations and two episodes of generalised tonic clonic seizures. She eventually progressed to develop a decreased level of consciousness and haemodynamic instability. Diagnosis of NMDA encephalitis was made. Her symptoms progressed even after the administration of two Intravenous immunoglobulin (IVIG) trials, steroids, and three antiseizure medications until she experienced a spontaneous abortion. She then gradually returned to her normal baseline condition.

Conclusion:
In this case report, we highlight the importance of suspecting anti-NMDAR encephalitis in pregnant patients with acute onset of psychiatric manifestations. Anti-NMDAR encephalitis can be a difficult, challenging, and exhausting diagnosis for both the patient and treating physicians. However, our case provides evidence that anti-NMDAR encephalitis during pregnancy can have a good prognosis.

SCIENTIFIC POSTERS

Poster 14

Cerebral Computed Tomography Perfusion Pattern in Todd's Paralysis: Unraveling Diagnostic Challenges and Clinical Implications

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Introduction:
Todd's Paralysis, a transient post-ictal neurological deficit, often mimics acute ischemic stroke, creating diagnostic challenges. The use of Computed Tomography Perfusion (CTP) is integral to stroke evaluation; however, distinguishing Todd's Paralysis from acute ischemic stroke based solely on CTP findings can lead to misdiagnosis and inappropriate interventions.

Objective:
This case series aims to explore the CTP patterns in patients with post-ictal Todd's Paralysis and examine the diagnostic difficulties in differentiating this condition from acute ischemic stroke.

Methods:
In this retrospective case series conducted at Sultan Qaboos University Hospital (SQUH), we reviewed four patients who presented with acute neurological deficits following seizures and underwent CTP within a 30-minute window from emergency department presentation. Non-contrast head CT, CT angiography, and CTP were performed on all patients, and clinical data were extracted from electronic medical records. All cases were evaluated for changes in cerebral blood flow (CBF), cerebral blood volume (CBV), and mean transit time (MTT).

Results:
All patients were scanned during the post-ictal period, with no seizures occurring during imaging. CTP findings in two cases revealed a CBF/CBV mismatch, mimicking an ischemic penumbra, leading to an initial misdiagnosis of stroke. The other two cases demonstrated reductions in both CBF and CBV, resembling ischemic infarcts, with one patient having an underlying focal lesion. Despite these imaging findings, all patients experienced full resolution of their neurological deficits within 48 hours following anti-epileptic treatment.

Conclusions:
CTP patterns in post-ictal Todd's Paralysis can closely resemble those seen in acute ischemic stroke, particularly in the presence of perfusion mismatches. Clinicians should exercise caution when interpreting CTP results in patients with seizure histories to avoid unnecessary treatments such as thrombolysis. Accurate diagnosis requires correlating imaging findings with clinical context to distinguish between true ischemic events and stroke mimics like Todd's Paralysis.

SCIENTIFIC POSTERS

Poster 15

Intracereberal hemorrhage In Young Adults Admitted to a Tertiary Hospital in Oman

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Background:
Intracereberal hemorrhage (ICH) accounts for 10-15% of all strokes and is associated with higher morbidity and mortality. Stroke in young patients has different clinical profiles compared with older adults.

Objective:
The study aims to investigate the clinical profile of non-traumatic ICH cases among young adults admitted to Khoula Hospital (KH).

Methods:
This is a retrospective cross-sectional study. It included all patient aged 18-45 years admitted to KH with non traumatic ICH from January 2022 to December 2023. Data were collected from the electronic medical records system. Descriptive statistics were used to analyze the data.

Results:
During the study period, 28 patients met the inclusion criteria: 75% were males (n=21). The mean age was 37.25±7.17 years. The most common risk factors are: hypertension 57.1% (n=16), diabetes mellitus 17.9% (n=5), and smoking 10.7% (n=3). About 25% of patients (n=7) had no known risk factors. The primary sites of bleeding were: putamen in 42.9% (n=12) of patients, lobar (28.6%, n=8) and thalamus (17.9%, n=5). The etiology of ICH was found to be: hypertension 46% (n=13), cryptogenic 32% (n= 9), arteriovenous malformation 10.7% (n=3), coaugulopathy 7% (n=2) and aneurysm 3.5% (n=1). The in-hospital mortality rate was 14.3% (n=4). About 60.7% (n=17) of patients had good functional outcome at discharge (modified Rankin scale 0-3).

Conclusion:
Hypertension remains a common risk factor and cause of non-traumatic ICH in young adults. About one-third of our young patients have cryptogenic ICH.

SCIENTIFIC POSTERS

Poster 16

Predictors of Neurological Deterioration among Patients with Cerebellar Infarction Who Required Suboccipital Decompressive Craniectomy: A Single Center Experience

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Background:
Sub occipital decompressive craniectomy (SDC) is a life-saving neurosurgical intervention to treat raised intracranial pressure that is caused by cerebellar infarction (CI). Preventive SDC in patients with CI has been supported in the literature, however, to identify which patients may require SDC later and to consider them as a candidate for preventive SDC remains unclear.

Objective:
We aim to identify potential clinical, laboratory, and radiological predictors of neurological deterioration in patients with CI who deteriorated and required SDC.

Methods:
This retrospective observational study reviewed medical records of patients with cerebellar infarction who underwent subsequent SDC at Khoula Hospital (KH), from January 2014 to March 2024. Their demographic, clinical, laboratory, and radiological data were retrieved and analyzed. All variables at admission were categorized and Chi-squared t-test analysis was used to identify the predictors of severe neurological deterioration (Glasgow Coma Scale< 9) at the time of surgery. The Glasgow Coma Scale (GCS) at admission and surgery was used as a neurological assessment tool, and the modified Rankin Scale (mRS) at discharge was used to determine the outcome.

Results:
Twenty-nine patients fulfilled the criteria; 18 were males (62.1%). Hypertension was the most common risk factor 20/29 (69.0%), GCS drop ≥ 2 points, and worsening in consciousness level were the most common indications for SDC. GCS < 12 at admission was the only significant predictor of severe neurological deterioration (GCS < 9) at the time of surgery (p=0.001). No significant laboratory, radiological, or other clinical predictor factors were identified. No significant predictors of outcomes at discharge were identified.

Conclusion:
Patients who present with cerebellar infarction and have GCS < 12 at admission can be considered a candidates for preventive SDC because they are more likely to deteriorate further and require SDC later.

SCIENTIFIC POSTERS

Poster 17

Oxidative Stress and Early Mortality in Acute Ischemic Stroke: A Prospective Cohort Study

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Background:
Malondialdehyde (MDA) is an oxidative stress biomarker, which represents
a unifying mechanism of brain injury that occurs throughout the ischemic stroke cascade.

Objective:
The study aimed to examine whether acute ischemic stroke (AIS) patients who had elevated serum MDA levels at admission had an increased risk of mortality and a worse functional outcome three months later.

Methods:
An observational, prospective cohort study that enrolled 90 patients with AIS. The patients were examined in the first 24 hours and then followed up for three months to assess mortality, short-term neurological functional outcome, and neurological disability by the Modified Rankin Scale (MRS).

Results:
The mean of serum MDA level among AIS patients was 6.3 ± 3.7 nmol/ml. Non-survivor cases were associated with statistically significantly higher serum MDA levels compared to survivors (9.7 ± 4.3 vs. 5.3 ± 2.8, $p < 0.001$), respectively. Patients with severe stroke, according to NIHSS score, were associated with significantly ($p < 0.05$) higher MDA levels compared to moderate and mild cases (7.4 ± 4.3 vs. 5.4 ± 2.6 vs. 3.3 ± .6). At a cutoff point of ≥ 6.7 nmol/ml, the area under the curve (AUC) for serum MDA levels as a predictor of mortality was 0.8 (0.69–0.91; $p < 0.05$). The sensitivity, specificity, positive predictive value, and negative predictive value were 77%, 80%, 89.5%, and 48.5%, respectively. Multivariate regression demonstrated that MDA level was a significant independent predictor of mortality among patients with AIS
(OR = 1.29, 95% CI: 1.01 to 1.65; $p = 0.041$).

Conclusion:
MDA serum level was significantly higher in non-survivors than in survivors
patients, so MDA could be used as a predictor for early mortality and short-term outcome of cases with AIS.

SCIENTIFIC POSTERS

Poster 18

Deep Brain Stimulation for Post-Stroke Complications: A Systematic Review

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Background:
Deep brain stimulation (DBS) has shown promise in effectively improving post-stroke complication.

Objective:
The aim of this study is to evaluate the effectiveness of DBS for post stroke complications**.**

Methods:
Systematic literature search was conducted using PubMed, Scoups, Wiley, Microsoft academic and Web of Science, following the PRISMA guidelines. Our literature search reviewed to fit the inclusion criteria from 39 literatures remains 30. Study characteristic includes post-stroke complication, anatomical DBS target, main outcome and duration follow-up.

Results:
133 patients were implanted with definitive DBS system after stroke. The most common targets used were Thalamus, Internal Globus Pallidus(GPi) and Periventricular Grey Matter respectively. Dyskinesia and post-stroke pain were the most common specific indications for DBS. Outcomes varied between studies and across the assessment parameter for improvement. Subjective and objective demonstration 90% improvement in safety and quality reduction in post-stroke complications after DBS were performed.

Conclusion:
This is the first systematic review in outcomes of DBS for post-stroke in general. This review suggests that DBS for post-stroke patient has the potential to be effective and safe for divers patients, and DBS may be a valuable option to improve function even years after stroke.

SCIENTIFIC POSTERS

Poster 19

Genetic and Clinical Insights into CADASIL Patients in Cyprus

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Background:
Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL) is a hereditary cerebral small vessel disease caused by NOTCH3 mutations that change the number of cysteine residues in the extracellular domain of the Notch3 receptor. CADASIL is characterized by recurrent ischemic episodes of variable severity, cognitive decline, migraines with aura, epilepsy, gait difficulties, and psychiatric disturbances.

Objective:
In this retrospective study, we investigated the clinical phenotype and the NOTCH3 mutation profile of Cypriot CADASIL patients to define the genotype-phenotype correlations.

Methods:
Nineteen genetically diagnosed CADASIL patients (10 males, 9 females) were included in the study, 18 symptomatic and one asymptomatic 24-year-old son of a patient. Clinical data were obtained from the patients' medical records. Phenotypic and genotypic data were analysed retrospectively. Blood samples were collected from 10 consented patients positive for the p.Arg449Cys mutation in exon 8 of NOTCH3, and haplotype analysis was performed using six microsatellite markers flanking the NOTCH3 gene. PHASE software v2.1.1 was used to reconstruct haplotypes from genotypic data.

Results:
NOTCH3 c.1345C>T, p.Arg449Cys was the most common mutation in 84% of the cases (16/19), while the remaining 16% had other mutations (p.Arg607Cys, p.Cys144Trp, p.Arg1231Cys). Symptomatic patients with the p.Arg449Cys mutation had a mean onset age of 47 years. Ischemic stroke (69%) and cognitive impairment (69%) were the most frequent clinical manifestations found in these patients, while epilepsy was the less common (19%). All symptomatic patients harbouring p.Arg449Cys showed white matter hyperintensities in MRI, 44% lacunar infarcts, 44% cerebral microbleeds, and 12.5% brain atrophy. Families carrying p.Arg449Cys shared a common haplotype at loci D19S411 (p.Arg607Cys-16) with a probability >0.6. The carriers originate from seven different villages, six of which are in mountain areas.

Conclusions:
We have demonstrated a unique clinical phenotype in Cypriot patients attributable to a specific NOTCH3 genotype. Additionally, a common haplotype was identified among p.Arg449Cys patients originating from the mountain area. Our findings revealed clinical variability and genetic diversity in CADASIL patients and provided new evidence suggesting a potential founder effect.

SCIENTIFIC POSTERS

Poster 20

Anti-Neutrophil Cytoplasmic Antibody-associated Central and Peripheral Nervous System Vasculitis: A Case Report

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Background:
Anti-neutrophil cytoplasmic antibody-associated vasculitis (AAV) usually manifests as systemic vasculitis. AAV with central nervous system (CNS) involvement in the form of mesenrhombencephalitis and peripheral neuropathy is extremely rare.

Objective:
The objective of this case report is to highlight the uncommon manifestation of AAV involving both central and peripheral nervous system.

Methods:
This is a case report.

Results:
A 59-year-old man presented with slurring of speech, imbalance while walking followed by headache, vomiting and altered sensorium for 3 days. He had a 3 months history of bilateral foot drop. Cranial nerve examination revealed restricted left horizontal and upward gaze deviation, left facial paralysis. Power was normal except for bilateral ankle dorsiflexors and plantar flexors weakness. Reflexes were brisk in upper limbs and absent in lower limbs. There was left upper limb incoordination. Magnetic resonance imaging of brain was suggestive of mesenrhombencephalitis with extensive hyperintensities in brainstem and cerebellum and with subarachnoid and intraparenchymal hemorrhage. Nerve conduction studies revealed sensorimotor axonal neuropathy. Vasculitis profile showed perinuclear- anti-neutrophil cytoplasmic antibody (p-ANCA) positivity. Nerve biopsy was suggestive of vasculitic neuropathy. He was diagnosed to have ANCA-associated CNS and peripheral nerve vasculitis and treated with intravenous steroids and maintained on rituximab. His neurological deficits improved with residual mild bilateral foot drop.

Conclusion:
The case demonstrates that in patients with suspected mesenrhombencephalitis or other types of autoimmune encephalitis, systemic involvement should be sought for, both clinically and serologically. AAV has diverse CNS manifestations. AAV should be considered in differential diagnoses among other causes of mesorhombencephalitis.

SCIENTIFIC POSTERS

Poster 21

Real-world Experience of Erenumab in Patients with Chronic or Episodic Migraine in Oman

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Introduction
Ereunamb is new preventative medication for Migraine. It is a fully humanized immunoglobulin G2 monoclonal antibody (mAb); highly potent and selective antagonist of the canonical CGRP receptor. Randomized controlled trials showed it is effective in reduction of monthly headache days. The effectiveness was assessed across different races and populations.

Objective:
This study aimed to evaluate the effectiveness of erenumab in real-world settings in patients with migraine in Omani population.

Methods:
This is retrospective, observational real-world study which enrolled adult patients ≥ 18 years with migraine who were prescribed erenumab in the Armed Forces Hospital (AFH) in Oman. Data were collected at baseline and at months 1, 3 and 6 through direct patients' contact and also retrievement of data from hospital records system. Data were analyzed using SPSS software system. The effectiveness was evaluated using Wilcoxon signed rank test, t-test and chi-square test.

Results:
Of the 39 patients, 25 (64.1%) were females. The mean age (standard deviation) at migraine onset was 27 (12.85) years. Twenty-four patients (61.5%) had chronic migraine and 15 (38.5%) had episodic migraine. All patients were prescribed 70 mg erenumab dose. The mean monthly headache days (MHD) at baseline was 21.56 (9.00) and mean change from baseline was 15.72 (11.01) at month 1, 11.82 (9.68) at month 3 and 7.82 (6.77) at month 6. The mean change from baseline in monthly acute migraine-specific medication days (MSMD) was 12.49 (11.01) at month 1, 9.59 (8.00) at month 3 and 6.13 (7.04) at month 6. At all time points, most patients achieved at least 50% reduction in MHD (80%–91%) and MSMD (84%–94%). Similar reductions in MHD and MSMD and clinical benefit in CM or EM were seen with erenumab monotherapy or erenumab add-on therapy. There was statistically significant reduction in the MHD and MSMD after receiving Erenumab with P value (<0.001). Main reported side effects are constipation in 15 (38.5%) and arthralgia in 8 (20 %).

Conclusion:
Erenumab showed statistically significant reduction in MHD and MSMD in Omani population patients in the short term period. Further study needed to evaluate the dose effectiveness between 70mg and 140mg.

SCIENTIFIC POSTERS

Poster 22

Knowledge and Diagnostic Confidence of General Practitioners in Managing Idiopathic Intracranial Hypertension: A Cross-Sectional Study from Oman

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Background:
Idiopathic intracranial hypertension (IIH) is a rare but potentially vision-threatening condition, often underrecognized in primary care settings. Timely diagnosis and effective management are critical to prevent complications, yet knowledge gaps among general practitioners (GPs) may hinder optimal care.

Objective:
This study aimed to assess the knowledge and diagnostic confidence of GPs in Oman regarding IIH.

Methods:
A cross-sectional survey was conducted among 150 GPs in the Al Batinah region and Muscat. The survey evaluated familiarity with IIH, recognition of clinical symptoms, diagnostic practices, and confidence in managing the condition. Descriptive statistics, chi-square tests, and ordinal regression analyses were used to assess associations between knowledge levels, professional background, and confidence in IIH management.

Results:
While 95.3% of respondents accurately defined IIH, only 20.7% could identify its symptoms, and 11.3% were aware of appropriate treatment options. Significant associations were found between higher knowledge scores and international medical training ($p = 0.001$), as well as internship location ($p = 0.001$). Confidence in diagnosing IIH was strongly associated with clinical exposure to IIH patients ($p < 0.001$).

Conclusions:
The study highlights critical knowledge gaps and low diagnostic confidence among GPs in Oman regarding IIH, particularly in recognizing symptoms and management strategies. Findings suggest that international training and clinical exposure enhance IIH knowledge and confidence, underscoring the need for targeted educational interventions to improve diagnosis and patient outcomes.

SCIENTIFIC POSTERS

Poster 23

Comparing the Efficacy of Various Non-Pharmacological Interventions in Management of Pediatric Migraine: A Systematic Review

Amatul Muqtadir Rumman

Shadan Institute of Medical Sciences, Telangana, India

Background:
Pediatric migraine affects a significant number of children and adolescents, often leading to functional impairment and decreased quality of life. Non-pharmacological treatments, including cognitive-behavioral therapy (CBT), mindfulness, biofeedback, hypnotherapy, offer alternative management strategies. Despite growing research, few systematic reviews have compared the efficacy of these interventions resulting in limited clinical guidance.

Objective:
This systematic review aims to evaluate and compare the efficacy of non-pharmacological interventions in reducing migraine frequency and improving secondary outcomes in pediatric migraine patients.

Methods:
A comprehensive literature search was conducted for studies published between 2010-2023. Eligible studies included randomized control trials (RCTs) and observational studies involving patients aged 9-18 years with primary migraine.
Non pharmacological interventions were compared to standard care, pharmacological treatments, or other non-pharmacological interventions. Data on primary outcomes (headache frequency) and secondary outcomes (psychological well-being, disability, medication intake) were extracted, along with adverse effects, effect sizes, and statistical significance.

Results:
Eleven studies with 823 participants were included. Interventions included cognitive behavioral therapy, mindfulness, hypnotherapy and biofeedback. Headache frequency reductions ranged from 34% to 78%, with significant improvement reported in most studies ($p<0.001$). For instance, a mindfulness based intervention showed a 54% reduction in headache days per month from 21.3 to 9.6 days ($p <0.001$). Secondary outcomes such as improvements in anxiety, depression and quality of life, were consistently favorable (Cohen's $d =0.5-1.1$). No significant adverse events were reported across interventions.

Conclusion:
Non pharmacological interventions are effective and safe in pediatric migraine management, significantly reducing headache frequency and improving psychological outcomes. Despite the promising outcomes of individual non-pharmacological interventions, a notable gap exists in direct head-to-head comparison, highlighting the need for the current systematic review to better delineate the effectiveness of non-pharmacological approaches compared to pharmacological treatments, thereby guiding future research and informing evidence based practice in pediatric migraine management.

SCIENTIFIC POSTERS

Poster 24

Unravelling Asparagine Synthetase Deficiency: Clinical, Radiological, and Genetic Profiles from Seven Omani Families

Alia Al Aasmi [1], Wasan Al Aremi [1], Khalid Al Thihili [2], Fathia Al Murshedi [2], Almundher Al Mawaali [2], Faraz Ahmed [2], Ahmed Mansi [3], Amna Al Futaisi [3]

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[3] Department of Child Health, College of Medicine & Health Sciences, Sultan Qaboos University, Muscat, Oman

Introduction:
Asparagine synthetase deficiency (ASD) is a rare, autosomal recessive neurodegenerative disorder characterized by severe progressive microcephaly, global developmental delay, spastic quadriplegia, refractory seizures, and, in severe cases, infant mortality.

Objective:
The aims are; to study the clinical profile and the genetic mutations for children with ASD in Oman and to examine the phenotype and genotype correlation based on the genetic mutations

Methods:
We conducted a retrospective descriptive analysis of genetically confirmed children with ASD diagnosed at Sultan Qaboos University Hospital between 2012 and 2023. Demographic information was collected from the hospital information system. The clinical and radiological features were reviewed. Clinical and molecular geneticists reviewed all genetic test results. Simple descriptive statistics were used.

Results:
Seventeen patients from seven consanguineous families were identified. All patients exhibited progressive microcephaly, developmental and speech delays, and early-onset seizures beginning in infancy. Notably, patients with lethal mutations, such as c.569T>G and c.454G>C, displayed symptoms of jitteriness within the first few days after birth and tragically succumbed within nine weeks. Conversely, patients with the more stable mutation c.146G>A survived into adulthood, reaching 20 years of age, though with significant cognitive and physical impairments. Another case involving a patient with a lethal but somewhat more stable mutation, c.1399A>G, extended life expectancy up to 3 years.
MRI findings in all cases revealed cerebral atrophy and variable thinning of the corpus callosum, consistent across all patients, regardless of the specific mutation. Additionally, a trial of asparagine supplementation in a couple of patients was attempted but did not yield successful outcomes, with no significant improvement in neurological symptoms or disease progression observed.

Conclusion:
This study examined the clinical presentation of children with ASD from consanguineous families, revealing a range of severity from fatal, early-onset cases to stable variants with significant neurodevelopmental decline. The findings emphasise the impact of specific genetic mutations on prognosis and the need for early genetic diagnosis and counselling to improve management and outcomes.

SCIENTIFIC POSTERS

Poster 25

The Effects of Using E-Mails for Clinical Communications between Neurology Patients and Neurologists

Al-Zahraa Al-Arafati [1], Al-Zahraa Al-Sa'idi [2], Haifa Al-Abri [3]

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[2] Neurology Residency Program, Oman Medical Specialty Board, Muscat, Oman
[3] Neurology Unit, Department of Medicine, Sultan Qaboos University Hospital, Muscat, Oman

Background:
The use of Internet based communication sites has grown exponentially over the last few years, especially during COVID-19 pandemic, mainly using the e-mails and social media applications. Recently, the role of these tools increased especially in health related field, in the context of providing medical education and to some extent virtual cross consultations.

Objective:
This study aims to evaluate the effectiveness of using e-mails as a tool for fostering communication between patients and a neurologist.

Methods:
This is a retrospective cross-sectional study conducted among patients attending the neurology epilepsy clinic at SQUH from October 2020 to May 2024. The data were collected via an e-mail created by the neurologist shared among respective patients, in addition to data obtained from the electronic medical records system. Data were analyzed using the SPSS software version 26.0.
The collected data included patient's demographics, neurological diagnosis, the e-mail subjects' health concern, neurologist's timeframe to respond to e-mails, neurologist's ability to address all concerns and healthcare outcome after the response.

Results:
The study included 117 patients between the age group of 13-50 years. The highest percentage (42.6%) of using e-mails was among the age groups 24-45 years. The majority of patients carried the diagnosis of epilepsy (94.12% for females and 84.09% for males). The most prevalent concern was about medications (77.42%) in context of dosages, side effects and other concerns like pregnancy related issues. The study measured the effectiveness of neurologist response was 54.53% in scheduling unnecessary extra appointments or emergency care visits and the subjective satisfaction among patient with impact on their follow up visits.

Conclusions:
The study showed some evidence that using the email as a communication method for doctor-patient interaction between the physical clinic visits in the current digital era will provide appropriate continuity of care and hold immense potential for health care provider, in term of early addressing the health concerns which can be filtered and acted on accordingly without placing extra burden on the healthcare system.

SCIENTIFIC POSTERS

Poster 26

The "Weekend Effect" and "Off-Hours Effect" in Pediatric TBI: An Observational Study From the High-Income Developing Country—Sultanate of Oman

Adham Al-Rahbi [1], Aws Al-Farsi [1], Rashid Al-Shibli [1], Salim Al-Kalbani [1], Tariq Al-Saadi [2]

[1] Sultan Qaboos University Hospital, Muscat, Oman
[2] Department of Neurosurgery, Cedars-Sinai Medical Center, Los Angeles, USA

Background:
Traumatic brain injuries (TBIs) are the leading cause of death and disability in children. The concern about care quality difference between weekdays and weekends is increasing.

Objective:
This study compares the outcome of TBIs in pediatrics during weekdays versus weekends.

Methods:
This is a retrospective cohort study conducted from January 2015 to December 2020 involving 98 patients from Khoula Hospital. The primary outcome was death, which is defined as deaths during the index hospitalization and/or deaths within 30 days. The need for surgical intervention is another outcome. We considered the difference in outcomes between working hours and off-hours in the same patients. Binary regression analysis was used to identify risk factors associated with pediatric TBI mortality based on arrival time.

Results:
All 98 patients were discharged from the hospital with no mortality. Additionally, all our patients had surgical intervention during their hospital stay. A higher number of males presented during weekdays (73.4%), while a higher number of females presented during weekends (63.2%; $P < 0.05$, OR = 0.282). The number of patients presenting during weekdays (80.6%) was higher than those presenting during weekends (19.3%). In addition, the number of patients presenting during off-hours (39.7%) was higher than that of patients presenting during working hours (60.2%; $P < 0.05$). Patients presenting during off-hours were likely to have surgeries lasting < 0.05).

Conclusion:
No association was found between weekend/off-hour effects and pediatric TBI outcomes. Currently, there are no existing studies that highlight this effect on pediatric TBI. Therefore, this study is the first study investigating the difference in outcomes between weekdays and weekends in pediatric TBI cases.

GENERAL INFORMATION

GENERAL INFORMATION

CME & CERTIFICATE OF ATTENDANCE

SESSION ATTENDANCE

- Please attend Scientific Sessions at the Conference on time.
- Workshops registration is on first-come first-served basis.
- Poster evaluation sessions timings will be announced early on Day-1.
- CME credits awarded will be dependent on session attendance.

INSTRUCTIONS FOR CLAIMING CME CERTIFICATES

- A survey in the form of an online questionnaire will be emailed after the Conference, to be completed by each delegate.
- The CME Certificate will be e-mailed to the registered email address upon completion and receipt of the online questionnaire.
- Please ensure that the email provided at the time of registration is accurate, otherwise certificate of attendance and the CME certificate may not be received.
- Delegates will be able to check that their email is accurate at the onsite registration desks during operational hours.

REGISTRATION

- Registration desks will be located at the conference venue at Maani Hotel on Ground Floor and operational as per the following schedule:

DAY 1

Friday
8th Nov, 2024

7:00-17:30

DAY 2

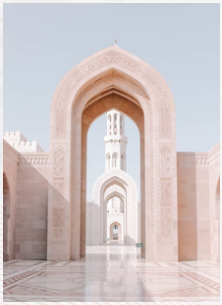
Saturday
9th Nov, 2024

7:00-17:30

- Please note, Conference Registration is closed since 20th Oct, 2024.
- Registered attendees must always wear their badge during the conference. Badges will be scanned at the entry point to each session hall and anyone without a badge will not be allowed entry.

FOOD AND BEVERAGE

- Complimentary light refreshments will be provided in the morning and afternoon coffee breaks at the specified Coffee Break Area. Lunch will be arranged at Resturant, close to the Conference Hall.



DISCOVER OMAN

Oman, a jewel in the Arabian Peninsula, is a land of mesmerizing landscapes, ancient heritage, and vibrant traditions. Nestled between the turquoise waters of the Arabian Sea and the golden sands of the Rub' al Khali desert, Oman offers an enchanting blend of natural wonders and cultural riches that beckon travelers from around the globe. From the bustling capital city of Muscat to the serene beaches of Dhofar, and from the towering peaks of the Al Hajar Mountains to the tranquil wadis and deserts, Oman is a destination that promises an unforgettable experience.

A Treasure Chest of Natural Beauty and Cultural Heritage

Oman's rich history, dating back thousands of years, is reflected in its well-preserved forts, ancient ruins, and traditional souks. The country's diverse geography provides a stunning backdrop for a range of activities, from mountain trekking and desert safaris to diving and bird watching. Oman's hospitable people and their deep-rooted traditions add to the allure of this fascinating country, making it a must-visit for those seeking both adventure and cultural immersion.

This guide highlights some of the must-visit places within to help you experience this captivating country.

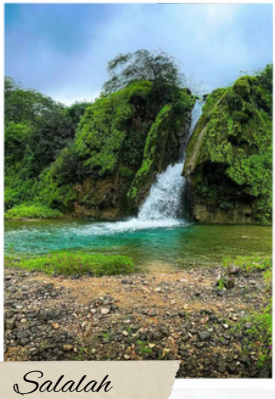
Muttrah Corniche

Royal Opera House
Muscat

Sultan Qaboos Grand
Mosque

Al Mughsail Beach

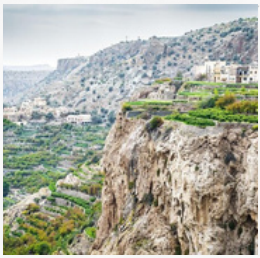
Al Jalali and Al Mirani Forts



Salalah

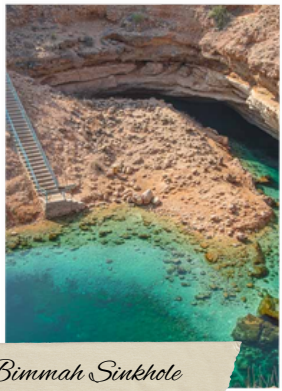
Wadi Darbat

Nizwa Fort



Jebel Akhdar

Jebel Shams



Bimmah Sinkhole

Nakhal fort

Wahiba Sands

Wadi Bani Khalid

Tiwi Beach

Khasab

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BREAKING NEWS

CHALLENGE-MIG TRIAL

The first and only head-to-head trial of a monoclonal antibody against a gepant

Nurtec® ODT (rimegepant)
orally disintegrating tablets 75 mg

No statistically significant difference was observed between galcanezumab compared with rimegepant for the prevention of episodic migraine in the CHALLENGE-MIG study*[1,2]

CHALLENGE-MIG: a head-to-head, Phase IV, double-blind, randomised, double-dummy trial of rimegepant 75 mg ODT vs galcanezumab 120 mg SC for the preventive treatment of episodic migraine, with screening/washout and baseline monitoring[1,2]

Treatment Phase1 3 months, N=580

- Adults 18–75 years old
- ≥1 year history of migraine +/- aura
- Episodic migraine: 4–14 headache days per month with ≥2 migraine attacks per month

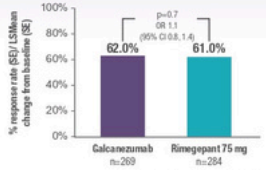
R 1:1

- Galcanezumab 120 mg (after 240 mg loading dose) SC monthly plus placebo ODT every other day
- Rimegepant 75 mg ODT every other day plus placebo SC monthly (two placebo injections initially)

Primary Endpoint[1]

Galcanezumab failed to meet its primary endpoint of statistical superiority over rimegepant[1]

Percentage of participants with at least a 50% reduction in monthly migraine headache days (≥50% response rate)



Created from Schwedt T.J., *et al. Neurol Ther* 2023.[1]

Secondary Endpoints[1]

- Efficacy analyses performed within ITT population

As primary endpoint not met, and in accordance with prespecified multiple testing procedure, **key secondary endpoints cannot be considered statistically significant**

Adverse event rates were similar between galcanezumab and rimegepant[1]

Variable, n (%)	Galcanezumab** 120 mg (n=287)	Rimegepant† 75 mg (n=293)
Serious adverse events	0	1 (0.3)
Participants with ≥1 TEAE	60 (20.9)	60 (20.5)
Discontinuation from study due to an AE	2 (0.7)	4 (1.4)
TEAEs occurring in ≥3 participants (overall)		
COVID-19	12 (4.2)	5 (1.7)
Nausea	3 (1.0)	4 (1.4)
Fatigue	2 (0.7)	4 (1.4)
Injection-site pain	2 (0.7)	4 (1.4)
Nasopharyngitis	1 (0.3)	5 (1.7)
Influenza	3 (1.0)	2 (0.7)
Anemia	3 (1.0)	1 (0.3)
Migraine	0	4 (1.4)
Sinusitis	1 (0.3)	3 (1.0)
Constipation	3 (1.0)	0
Diarrhea	2 (0.7)	1 (0.3)
Hypertension	1 (0.3)	2 (0.7)
Upper respiratory tract infection	1 (0.3)	2 (0.7)
Vertigo	2 (0.7)	1 (0.3)

Extracted from Schwedt T.J., *et al. Neurol Ther* 2023.[1]

One SAE reported:[1]

- A **pulmonary embolism** (PE) occurred in a participant receiving rimegepant who had an undisclosed history of PE
- The participant **recovered and discontinued the study.** The event was considered by the investigator to be related to the blinded study intervention

No clinically meaningful differences between study intervention groups in **vital signs** or **laboratory parameters**[1]

CI, confidence interval; ITT, intention to treat; ODT, orally disintegrating tablet; OR, odds ratio; R, randomisation; SC, subcutaneous. (S)AE, (serious) adverse event; TEAE, treatment-emergent adverse event.

*Protocol-specified acute migraine headache medications (acetaminophen; non-steroidal anti-inflammatory drugs; triptans; ergotamine and derivatives; aspirin, caffeine, and acetaminophen combination; or combinations thereof), as needed, were permitted during all study periods. Gepants, including rimegepant, were not allowed to be used for acute migraine treatment.[1]

**Participants received galcanezumab 120 mg and placebo ODT.[1] †Participants received rimegepant 75 mg and SC placebo injection.[1]

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*in overall population

1.Data on file to be provided if requested. OMB157G (ofatumumab). Summary of clinical efficacyin relapsing multiple sclerosis. Novartis Pharma AG, Kuwait August 2023. 2.Data on file to be provided if requested.OMB157G (ofatumumab) Statistical overview. Novartis Pharma AG, Kuwait August 2023. 3.Giovannoni G, Turner B, Gnanapavan S, Offiah C, Schmierer K, Marta M. Is it time to target no evident disease activity (NEDA) in multiple sclerosis?Mult Scler Relat Disord. 2015;4(4):329-333.4 Kesimpta [package insert].Novartis Pharma AG, Kuwait August 2023. 5.Huck C, Leppert D, Wegert V, et al. Low-dose subcutaneous anti-CD20 treatment depletes disease relevant B cell subsets and attenuates neuroinflammation. J Neuroimmune Pharmacol. 2019;14(4):709-719.
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