The 8th Summer School of ASNER, The Romanian Society of Electrodiagnostic Neurophysiology

SDV2018, Eforie Nord, Romania
14-16 July 2017

Abstract book

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THE SOCIETY FOR THE STUDY OF NEUROPROTECTION AND NEUROPLASTICITY

International Federation of Clinical Neurophysiology

Dear Friends,

It's again July, and that means it is again time for the Summer School in Clinical Neurophysiology. We are now starting this scientific event for the 8th time, so I suppose we are entitled to call it a tradition. Some of you have participated every year, many of you have attended this school a few times, and others are newcomers, but all of us have one thing in common, namely our passion for neurophysiology. We have prepared a scientific program that will contain a plenary session, and, workshops in both EEG, EMG. Again, we have important guests who have accepted our invitation for this event.

So we are expecting two days of intense scientific activity, in a beautiful environment, and maybe will take a few minutes to enjoy the beautiful beach and the sea, to chat, to make new friends.

Welcome to the 8th Edition of the Summer School in Clinical Neurophysiology !

Sincerely,

Tudor Lupescu M.D. Ph.D.

ASNER President

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Friday July 8th

12.00 – 13.00 Welcome cocktail

13.00 – 13.15 – Opening remarks

13:15-14:15 Sudoscan (20 min presentation + 40 min workshop)

14:15-16:15 EMG workshop

Painful legs and moving Toes - recognize what you know (Mircea Moldovan)

Case presentation (Ana-Maria Cobzaru)

Electrodiagnostic Examination (Christian Krarup)

Blink reflex (Mircea Moldovan)

16.15 - 16.30 Coffee Break

16.30 -18.00 EEG workshop - video EEG long term monitoring

Video EEG long term monitoring: How to record seizures or other clinical events - Irina Popa

Video EEG monitoring - Seizure onset patterns could predict global seizure dynamics (Mihai Malaia)

Video EEG monitoring in children - general setup and objectives (Oana Tarta)

Free time

Saturday, July 9th

Plenary Session 1 (Chair Tudor Lupescu)

9:00-10:00 Neurogenic disorders vs myopathy (Christian Krarup)

10:00-10:15 EMG – Waveforms and cases (Tudor Lupescu)

10:15-10:45 Nerve excitability testing – "introduction" (Mihai Moldovan)

10:45-11:00 Coffee break

Plenary Session 2 (Chair Ioana Mindruta)

11:00-11:20 Connectivity in the brain - gaining insight in the epileptogenic networks (Ioana Mindruta)

11:20-12:00 Hippocampal sclerosis (Sanda Petrutiu)

12:00-12:20 FDG PET/CT scan studies - technique and application in epilepsy (Oreste Straciuc)

12:20-12:40 PET scan and anatomo-electro-clinical correlation in focal epilepsy - Anca Arbune

12.40-13.00 Merk Symposia (20 min)

13.00-15:00 – Lunch

15:00 - 16.30 Nerve excitability testing – "hands-on"

(Mihai Moldovan)

16:30-17:00 Coffee Break

17.00 -18.30 EEG workshop - Semiology of epileptic seizures - recordings and testing

Irina Popa - semiology of seizures in adult population

Semiology of seizures in children (Oana Tarta)

Cognitive testing during video EEG monitoring (Andrei Daneasa)

Discussion

19.00 Get together dinner

Sunday, July 10th

9.00-12.00 cases/presentations (Chair Ionela Codita)

Neuralgic amyotrophy - case report (Ionela Codita)

Lateral plantar nerve neuropathy (Andreea Moldovan)

Common peroneal nerve palsy due to type-2 diabetes mellitus and rapid weight loss – a case report (M. M. Martoiu)

EMG Quiz/ Discussions

Neurogenic disorders vs myopathy

Christian Krarup

Department of Clinical Neurophysiology, the Neuroscience Center, Rigshospitalet

Department of Clinical Medicine and Center for Neuroscience, University of Copenhagen

The neurophysiological examination is an extension of the clinical neurological examination, and therefore it should be based on the history and objective findings. This relationship will be presented in cases with motor and sensory symptoms and will include differential assessment of neurogenic weakness and myopathy. The presentation will include the different methods that are applicable in these situations, and it is the hope that interaction with the audience will lead to a fruitful dialogue.

Christian Krarup

MD, DMSc, FRCP, FEAN

Professor of Clinical Neurophysiology

christian.krarup@regionh.dk

Education and training:

CK received his MD from the University of Copenhagen in 1975 and trained in Neurology and Clinical

Neurophysiology at Rigshospitalet (Copenhagen), Queen Square (London) and NINCDS (NIH, Bethesda).

He received his Doctorate in Medical Sciences on studies on excitation-contraction coupling in striated muscle in 1984.

Appointments:

CK was appointed Visiting Scientist at NIH (1982-84); Chief of Clinical Neurophysiology (Brigham & Women's Hospital, Boston), Assistant/Associate Professor (Harvard Medical School), and ResearchAssociate (MIT) (1984-1990); Head of the Department of Clinical Neurophysiology (1992-2015) and Senior Consultant (Rigshospitalet, Copenhagen) and Professor of Clinical Neurophysiology (2015 – current).

Awards and Honors:

1978, First Prize for research proposal, Muscular Dystrophy Group of Denmark

1988, Annual Prize of the Polio Foundation of Denmark

1991, Elected member (corresponding) of the American Neurological Association (ANA)

1999, Muusfeldt-prize for research in Electrophysiology

2003-2004, President of the European Neurological Society

2003, Honourary Fellow of the Royal College of Physicians London (FRCP)

2015, Honourary Fellow of the European Academy of Neurology (FEAN)

EMG – Waveforms and cases

Tudor Lupescu,

Agrippa Ionescu Hospital, Bucharest

RoNeuro Institute for Neurological Research and Diagnosis

Electromyography is a beautiful tool in the hands of physicians. Specialized in neuromuscular disorders. In many cases, changes in some numerical parameters and configuration of waveforms point very exactly about the nature of a disease, it's stage, sometimes duration, and evolution, and also may also suggest appropriate treatment. The presentation will show such situations and demonstrate that, EMG with fari clinical reasoning cn be very helpful.

Tudor Dimitrie Lupescu

MD, Ph.D.

ltudor64@yahoo.com

Tudor Lupescu obtained his medical degree from "Carol Davila" University of Medicine in Bucharest, in 1989. After 3 years of training at Colentina Clinical Hospital he became Specialist in Neurology in 1994. Since 2006 he is running the Neurology Department al Agrippa Ionescu Hospital in Bucharest. 1998, he qualified as Consultant Neurologist. Since his early years of training in Neurology, Tudor Lupescu has shown a special interest in Clinical Neurophysiology. In 2000 he earned a Competence in Clinical Neurophysiology (EEG, EMG, and Evoked Potentials). 1997 he was the first to use Transcranial Magnetic Stimulation in Romania. This was also the subject of his PhD thesis presented in 2005. Since 2008, Tudor Lupescu is President of ASNER – Romanian Society of Electrodiagnostic Neurophysiology. He is also founding member and vicepresident of the the Romanian Society of Diabetic Neuropathy.

Dr Tudor Lupescu is associate member of the American Academy of Neurology, and associate member of the American Association of Neuromuscular and Electrodiagnostic Medicine. Between 2008 and 2014 he was also member of the Neurophysiology Subcommittee of ENS, and since 2015, he is member of the Neurophysiology Subcommittee of the European Academy of Neurology.

Connectivity in the brain - gaining insight in the epileptogenic networks

Ioana Mindruta 1,2, Cristian Donos 3,4, Jean Ciurea 5, Andrei Barborica 3,6

1Neurology Department, University Emergency Hospital, Bucharest, Romania

2Neurology Department, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

3Physics Department, University of Bucharest, Bucharest, Romania

4Neurosurgery Department University of Texas, Health Science Centre at Houston, TX

5Neurosurgery Department, Bagdasar-Arseni Emergency Hospital, Bucharest, Romania

6FHC Inc, Bowdoin ME, USA

In the the human brain, the term "connectivity" refers to structural, functional or effective connectivity. Intracranial electrical stimulation represents the most direct way of investigating the effective connectivity, as it is based on the same type of signals the brain normally uses. A method that maps the effective connectivity revealed by the electrical stimulation of epileptogenic and non-epileptogenic brain structures to assemble an effective connectome (EC). In patients with refractory epilepsy implanted with depth electrodes for presurgical evaluation effective connectivity was assesed by analyzing the responses to single pulse electrical stimulation (SPES). Stimulation pulses having variable amplitude were applied to each pair of adjacent contacts and responses evoked by stimulation were recorded from other contacts located in other brain areas. Early responses (10–110 ms) on the stimulation-activated contacts were weighted by the epileptogencity of each area and averaged for each patient, resulting in a patient-level physiological effective connectome (EC). The population level EC is computed by averaging the connections of the individual ECs, on a structure by structure basis. The effective connectome can be used as a reference tool for differential analysis of altered versus normal brain connectivity in epileptic patients.

Ioana Mindruta

Lecturer, MD, PhD

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48-year old, neurologist, with competence in electrophysiology and special interest in epileptology, mainly invasive presurgical exploration for epilepsy surgery, neurostimulation and brain connectivity. PhD thesis on "Sleep studies in epileptic syndromes" in 2006.

Current position at the University Emergency Hospital in Bucharest in the Epilepsy and Sleep Monitoring Unit and also hospital coordinator of the National Programs for Pharmacoresistant Epilepsy and Rare Disorders.

Academic affiliation - lecturer in neurology at the University of Medicine and Pharmacy "Carol Davila" of Bucharest.

Vicepresident of Romanian Association for Clinical Electrodiagnosis (ASNER) since 2009.

Nerve excitability testing – "hands-on"

Mihai Moldovan (1,2)

1) *Copenhagen University DK;*
2) *Carol Davila University, Bucharest, RO*

Conventional nerve conduction studies provide information about the number of conducting axons as well as their conduction velocity along the investigated segment, a surrogate marker of myelination. In contrast, nerve excitability testing asses ion channel function and resting membrane potential at the site of stimulation providing an unique insight into the disease mechanisms.

From the patients's perspective, excitability testing is a simple continuation of conventional studies. The test is commonly performed on the median nerve motor and sensory axons stimulated at wrist. A test takes about 15 minutes and consists of a sequence of measures controlled automatically by a computer: 1) charge-duration, threshold electrotonus, current-threshold and recovery cycle. Results are given as a set of numeric excitability indices derived from the measures. Deviations from control values is interpreted based on a increasing number of literature reports in different pathologies. A mathematical model is available to aid the interpretation.

The presentation will illustrate "hands-on" the practical steps leading to recording/analysis of an nerve excitability test and illustrate the interpretation.

Mihai Moldovan

Assoc. Prof., MD, Ph.D.

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Mihai Moldovan obtained his medical degree from "Carol Davila" University Bucharest in 1999 and PhD degree in neurophysiology from Copenhagen University in 2004 where he continues his academic career.

•2016, 'P.K.Thomas' prize of the European Academy of Neurology.

• Since 2014, elected full member in the European Dana Alliance for the Brain (EDAB).

• Since 2013, serving on general council of Federation of European Neuroscience Societies (FENS) and International Brain Research Organization (IBRO).

• Since 2012, President of the National Neuroscience Society of Romania (SNN), a FENS member.

• Since 2012, editorial board member for Clinical Neurophysiology, the official scientific journal of the International Federation of Clinical Neurophysiology (IFCN).

• Since 2009, Scientific director of the Romanian society for electrodiagnostic neurophysiology (ASNER), an IFCN member.

• Since 2009, Invited professor and research director associated to the Department of Physiology and Fundamental Neurosciences, "Carol Davila" University of Medicine and Pharmacy, Bucharest Romania;

Painful legs and moving toes: Recognize wat you know

Mircea Moldovan, Cecilia Albu, Ionela Codita, E Georgescu

Neurology Department of Elias University Emergency Hospital, Bucharest

Painful legs and moving toes syndrome is a rare disorder. In the1971-2010 interval, there were published data only about 72 patients.

The syndrome is characterized by spontaneous pain in the lower limbs, associated with involuntary movements of the fingers and toes, sometimes of the foot. The diagnosis is mainly clinical.

Electrodiagnostic examination with surface electrodes registers the movements of flexion, extension of the fingers, and feet as an actogram or brief muscle contractions.

Usually, treatment consists in therapy with physical agents, medication with anticonvulsants, and benzodiazepines, which seem to be the more effective GABAergic agents.

We present the case of a patient 70+ yrs. old, suspected of polyneuropathy in the context of a type 2 Diabetes mellitus, under oral medication for pains in the lower limbs with sensation of numbness and frequent muscle cramps.

Clinical myotatic reflexes are present, with superficial distal monofilament hypoesthesia 0.5 measuring range, with deep vibration sense tuning fork 64Hz/6th degree.

Neuro-graphic parameter values were compatible with mixed, predominantly axonal polyneuropathy addiction long declassification Dyck 1a. During the examination were observed involuntary, spontaneous, independent movements; irregular and bilateral, known to the patient from a long time. Registering with surface electrodes evidenced pseudo-rhythmic movements of interosseous leg muscles and EDB muscle, of 100-300 ms duration.

Clinical and Electrodiagnostic was appreciated as a syndrome of painful legs with involuntary movements of fingers.

Conclusion: Semiology knowledge contributes to a more accurate diagnosis of some rarer diseases.

Mircea Moldovan

MD, PhD

mirceaemg@gmail.com

Dr. Mircea Moldovan, graduate of the "Carol Davila" University Bucharest, Doctor of Medical Sciences, MD is a neurologist at the Hospital "Elias" Bucharest since 1968. Throughout his career, he had a continuous interest for clinical neurophysiology. In the 80s, his main interest was the EEG and evoked potentials under the guidance of Prof Dr V Voiculescu. In the 90s, his interest expanded to the peripheral conduction studies and EMG. During his pioneering work in Romanian clinical neurophysiology, Mircea Moldovan advocated the diagnostic importance of clinical neurophysiology for neurological practice through talks at national scientific meetings and scientific publications. Most importantly, however, through his wealth of practical experience and didactic spirit, he helped initiate in clinical neurophysiology generations of young neurologists. During the last decade, with the transformation of "Elias" hospital neurology into a university department and re-formalizing his skills in EMG (2003) and EEG (2004), Dr. Mircea Moldovan developed his preoccupation for clinical neurophysiology teaching. Together with Dr. Ionela Codita he carries out practical demonstrations of post-graduate courses organized by Professor Dr. Panea EMG. In addition, Dr. Mircea Moldovan contributed to re-launch of the clinical neurophysiology society in Romania as founding member of ASNER 2009.

Reflexul de clipire (Blink reflex)-metoda tehnica electrofiziologica simpla

Reflexul de clipire este o metoda tehnica electrofiziologica de explorare a nervilor cranieni trigemen si facial putand detecta anomalii la nivelul intregului arc reflex de conexiune al acestora Se prezinta 3 situatii care arata importanta efectuarii acestei metode ,simple,rapide si relevante -boala CMT tip 1 -polineuropatia cronica inflamatorie -paralizia internucleara.

Neuralgic amyotrophy - case report

Ionela Codita,

Andreea Banica, Maria Melania Martoiu, Madalina Voichtescu

Neurology Department of Elias University Emergency Hospital, Bucharest

Ionela Codita

MD

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Brachial neuritis, also known as neuralgic amyotrophy or Parsonage Turner Syndrome, is a rare syndrome, of unknown etiology, affecting mainly the lower motor neurons of the brachial plexus or individual nerves.

We present a case of a 37 year-old male, complaining of acute onset of left shoulder pain, followed by proximal weakness of the left arm and left supraspinatus, infraspinatus and deltoid muscles atrophy.

Nerve conduction studies were performed for the superior limbs but there were not found any abnormalities compatible with scapular neuropathy or upper brachial plexopathy.

Needle EMG showed denervation in the deltoid, suprascapular , infrascapular si romboid muscles.

The examination of paraspinal muscles offered proof against C5-C6 radiculopathy , leaving viable a single diagnosis that is of neuralgic amyotrophy.

Ionela Codita is currently working as a Senior Neurologist in the Neurology Department of Elias University Emergency Hospital in Bucharest.

She earned a Competence in Clinical Neurophysiology in 2005. During her practice, dr. Codita attended many courses and teaching programs in the field of Clinical Neurophysiology such as: scholarship in Neuro-physiopathology field at Policlinical Institute of San Donato Milanese, Italy (2002-2004), "Training Course in EMG and Neurography"-Uppsala, Sweden (2009), International SFEMG and QEMG Course–Kobe, Japan (2010), VIREPA distance learning courses on "EEG in the diagnosis and management of epilepsy – Basic Course 6th edition" (September 2011- March 2012) and "EEG SCORE course-1st edition"(November 2012-March 2013), the international educational course "Dinalund Summer School on EEG and Epilepsy" (July 2012) and educational course: "Brainstem and Peripheral Nervous System-Neurophysiological Monitoring"- Groningen, Netherlands (Nov 2016).

She manifests interest in Peripheral Neuropathies, Motor Neuron Diseases, Myopathies and Intraoperative Neuromonitoring. Dr. Ionela Codita is a member of the Romanian Society of Neurology and she is the Secretary of ASNER-The Romanian Association for Clinical Electrodiagnosis, since 2013.

Hippocampal sclerosis

Petruţiu Sanda Hortensia

Spitalului Clinic Judeţean de Urgenţă Tîrgu Mureş

Hippocampal sclerosis (HS) was first described by Bouchet and Cazauvielh in 1825. Later the term mesial temporal sclerosis (MTS) was used to define the histopathological complex of alterations in the amygdala, uncus and temporal lobe often associated with HS. This includes a distinctive pattern of neuronal loss, gliosis and reorganisation in the following sectors: CA1, CA3 and CA4, relatively sparing CA2. HS can be detected using MRI (increased signal on T2 weighted images and FLAIR, decreased signal on T1). HS is believed to cause about 20% of all epilepsies in adults and is responsible for about 86% of neurosurgical procedures. The etiology and pathogenesis of HS remains unclear. A previous history of febrile seizures and status epilepticus during the first years of life are the most common antecedents and possible cause for HS. It is still unknown whether previous abnormality in the hippocampus existed or not. Dual pathology defines the finding of coexistent HS and other histological alteration such as: microdisgenesis, cortical dysplasia, hamartomas, small tumors and cavernomas (5-20%). It was difficult to demonstrate that patients with pharmacoresistant, temporal epilepsy suffer from continuous hippocampal damage.

Clinical presentation is typical. EEG pattern is already well known. Several studies have concluded that patients with MTLEHS are more likely to develop intractable seizures than patients with other MRI abnormalities. Without surgery the prognosis of medically refractory patients with MTLEHS is relatively poor. We consider that as many patients as possible with MTLEHS which is resistant to medical treatment should benefit from surgical treatment.

Dr. Petruţiu Sanda Hortensia

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Am absolvit facultatea de Medicină Generală în cadrul UMF Iuliu Haţieganu Cluj Napoca în anul 1985. Din anul 1991 îmi desfăşor activitatea în Clinica Neurologie I din cadrul Spitalului Clinic Judeţean de Urgenţă Tîrgu Mureş. Din anul 1999 sunt medic primar neurolog. Începând cu anul 2004 în urma cursurilor de electroneurofiziologie (EEG, PE, EMG) efectuate la Spitalul Clinic Colentina Bucureşti şi la Spitalul Clinic Universitar Elias Bucureşti am obţinut comptenţa în electroencefalografie. De atunci domeniul principal de activitate a fost epilepsia participând activ la cursuri, congrese, studii clinice. În cadrul clinicii şi ambulatorului de specialitate de neurologie monitorizez şi conduc tratamentul pacienţilor epileptici, mulţi dintre aceştia beneficiind şi de examinare video EEG.

Seizure onset patterns could predict global seizure dynamics

Mihai Dragos MALIIA,

Cristian Donos, Ioana Mindruta, Matthias Dümpelmann, Andreas Schulze- Bonhage

Neurology Department, University Emergency Hospital, Bucharest, Romania

Epilepsy is characterized by transient alterations in brain synchronization resulting in seizures with a wide spectrum of manifestations. Seizure severity and risks for patients depend on the evolution and spread of the hypersynchronous discharges. Information on this not only would improve our understanding of ictal epileptic activity but is also of interest to overcome present-day limitations to EEG-based warning and intervention systems, allowing to provide specific reactions to upcoming seizure types. Here, we investigate the possibility to predict the future development of an epileptic seizure during the first seconds of recordings from their electrographic onset zone. Based on intracranial EEG recordings of 493 ictal events from 26 patients from the European Epilepsy Database and the Epilepsy Center of Freiburg University Hospital, a set of 25 time and frequency domain features was computed, using non-overlapping one second time windows, from the first three, five or ten seconds from the seizure debut. Three random forest classifiers were trained to predict the future evolution of the seizure, to distinguish between subclinical events, simple partial, complex partial and secondarily generalized seizures. Results show that early seizure type prediction is possible based on a single EEG channel located in the seizure onset zone with correct prediction rates of 76.2% ± 14.5% for distinguishing subclinical electro-graphical events from clinically manifest seizures, 75% ± 16.8% for distinguishing partial from secondary generalized seizures, and 71.4% ± 17.2% for distinguishing between simple and complex partial seizures. These findings provide the basis for developing systems for specific early warning of patients and healthcare providers, and for targeting EEG-based closed-loop intervention approaches to electrographic patterns with a high inherent risk to become clinically manifest.

Malaia Dragos-Mihai, MD

mihaidragosh@yahoo.com

28 year old, 3rd year neurology intern at the University Emergency Hospital Bucharest with a special interest in epileptology. Graduated UMF "Carol Davila" Bucharest with honors (3rd of my promotion). Involved in the Romanian Epilepsy Surgery Program with work and experience focused upon presurgical evaluation, implantation design via the SEEG technique, invasive monitoring and direct electrical stimulation, resection proposal, intraoperative functional mapping and postoperative follow up. Completed 2 grants: 3 months EAN Department to Department Co-operation in Freiburg Epilepsiezentrum, Germany and 6 months IFCN Research Award in Danish Epilepsy Center, Dianalund, Denmark. Member of International League against Epilepsy, International Federation of Clinical Neurophysilogy and E-pilepsy Consortium. Research interest in electrophysiology, in particular connectomics, brain mapping, biomarkers of the epileptogenic zone and electrical source imaging. Published original research abstracts and articles, one book chapter and held awarded speeches at European events in the field. As non-medical interests I am passionate about all fields of cognitive sciences but especially keen on the study of consciousness and the philosophical literature derived from it.

Semiology of seizures in children

Oana Tarta Arsene

Clinica De Neurologie Pediatrica, Spitalul Clinic De Psihiatrie 'Al Obregia', Bucuresti, Romania

In childhood, because of the lack of maturation of the brain, epileptic seizure could have different clinical data comparing with adults.

Because there are a lot of epileptic syndromes at different ages with different types of semiology, some of them with specific treatment, the complete diagnosis is necessary.

Only using long term video-EEG recording and seeing clinical data concomitant with electroencephalography background, the correct clinical description is possible.

This presentation will exemplify different types of epileptic seizures in children at different ages, in order to create a pattern-recognition for advanced neurologists who treat epilepsy at all ages.

Video EEG monitoring in children (general setup and objectives)

Oana Tarta Arsene

Clinica De Neurologie Pediatrica, Spitalul Clinic De Psihiatrie 'Al Obregia', Bucuresti, Romania

Epileptic or atypical paroxysmal events in children are very frequent. Because most of the times, when the neurologist is consulting the child, he doesn't have any of the events, the diagnosis is made after the history described by the parents or a home video recording which most of the time is not complete.

Because there are a lot of nonepileptic paroxysmal events or drug resistant seizures in children, in order to have a correct diagnosis a specialized recording is needed.

Using different clinical cases, this presentation will underline the stages of recommendation, evaluation and conclusion of video-EEG monitoring in children of different ages and different pathologies.

Lateral plantar nerve neuropathy

Andreea Moldovan

Mircea Moldovan

SUU Elias, Bucuresti, Romania

Una din cauzele leziunilor nervilor periferici este si compresiunea cronica in anumite ”tuneluri osteoligamentare “ , unde nervii sunt vulnerabili prin situarea lor intre os si canalul ligamentar. In aceste cazuri una din portiuni este mobila si determina prin miscare repetata afectarea functiei motorii sau senzitive.

Compresiunea nervului tibial in spatele maleolei mediale este mai putin frecventa si afectarea nervului cutanat lateral este mai putin obisnuita .

Se prezinta cazul unei paciente IA,18ani, cunoscuta cu luxatie bilaterala de sold corectata ortopedic , examinata pentru parestezii pe partea externa a piciorului stang in afara zonelor de inervatie ale nervului peroneal superficial si nervului sural .

Examenul clinic si cel neurografic au fost compatibile cu o leziune de nerv cutanat lateral in contextul modificarilor pozitionale determinate de valg glezna bilateral .

Common peroneal nerve palsy due to type-2 diabetes mellitus and rapid weight loss – a case report

M. M. Martoiu1, A. Bănică1, L. Popa1, I. Codiţă1, C. Panea1,2, Simona Petrescu1,2

1 Neurology Department, Elias Emergency Hospital, Bucharest, Romania

2 „Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

Background:

The common peroneal nerve – terminal branch of the sciatic nerve – provides the dorsiflexion of the foot and toes, abduction and external rotation of the leg, while also supporting the arch of the foot. Common peroneal nerve palsy is the most common disorder of the inferior legs, due to various causes.

Objectives, method and results:

We are presenting the case of a 57-year-old woman, smoker, with history of alcohol abuse and high blood pressure, admitted in the Neurology Department of the Elias Emergency Hospital for weakness in the right leg (distally) and postural instability with acute onset, following important weight loss (~ 20kg during the last couple of months). Clinical examination – distal right crural monoparesis, posture of adduction, internal rotation and foot drop, limited dorsiflexion, abduction and eversion of the foot, stepped gait, hepatosplenomegaly. Bloodwork – high blood glucose levels, high level of HbA1c (12,6%), hepatic cytolysis, thrombocytopenia, positive markers for hepatitic virus C, presence of oncological biomarkers (alpha-fetoprotein, CA 19-9, CEA). Native cerebral CT scan without lesions. Electroneurography shows focal right common peroneal nerve neuropathy, with conduction block at the level of the fibular head.

Conclusion, discussion:

The neurological symptoms associated with common peroneal nerve dysfunction can be taken into account when facing rapid and important weight loss, severe de nutrition and decompensation of a type-2 diabetes mellitus. The individual symptoms in this particular case (muscle weakness and postural instability) were considered the manifestation of the recently diagnosed decompensated type-2 diabetes mellitus in a patient with microangiopathy and severe denutrition and immunosuppressive disease (chronic C virus hepatitis) – in process of investigation for neoplastic ethicology .

FDG PET/CT scan studies - technique and application in epilepsy

Oreste Straciuc,

Ioana Mandruta, Dana Craiu, Oana Tarta-Arsene, Crenguta Oncu

PET/CT Pozitron-Diagnosztika, Oradea

Cancer versus epilepsy. It is difficult to compare two diseases and somehow useless, but the dramatic impact of human life in the same.

Goal of nuclear medicine and medical imaging combined in PET/CT technology is nowadays mainly cancer diagnostic. Yet the evaluation of brain function must be at least at the same level of concern. Detecting a glucose uptake defect in a focal epileptic patient may give a chance to an appropriate surgical treatment. Therefore in this material we want to present the value of FDG PET/CT in diagnostic of intractable epilepsy. Definition of the method and radiotracer, basic principle and description of the investigation steps and case reports are included after an experience of more than 1 year of activity and 73 epileptic patients scanned in *Pozitron Diagnosztika* PET/CT center from Oradea.

Adjustment of PET scan protocol, fusion with dedicated MRI exam and co-registration of data attached to the clinical scenario and EEG profile are equal important for an accurate diagnostic. Interdisciplinary approach and team work directed by neurologist is the proper conclusion.

Assoc. Prof. Oreste Straciuc

MD, PhD

oresterx@yahoo.com

Data şi locul naşterii: 09.05.1965, Oradea

Absolvent al Universităţii de Medicină şi Farmacie Timişoara - 1991

Medic primar radiodiagnostic din 2003 cu competenţe în Ecografie, CT, IRM si PET/CT

Doctor in stiinte medicale din anul 2004

Conferenţiar universitar în anatomie, radiologie şi imagistică medicală,

Şef disciplina – radiologie, Facultatea de Medicină şi Farmacie,

Universitatea din Oradea

Medic şef – Centrul PET/CT Pozitron-Diagnosztika Oradea din anul 2008, Centru ce a primit in 2013 acreditarea EARL din partea Societatii Europene de Medicina Nucleara. In activitatea de 9 ani au fost investigati peste 10.000 de pacienti oncologici, respectiv 50 pacienti cu epilepsie.

Membru al Societatii Romane de Radiologie si Imagistica Medicala

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