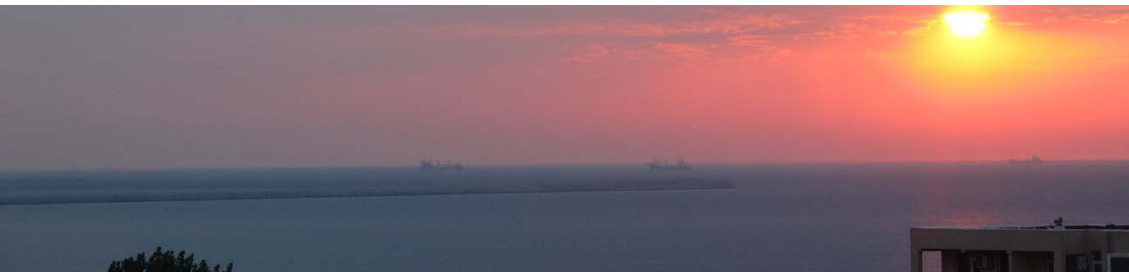
The 5th Summer School of ASNER, The Romanian Society of Electrodiagnostic Neurophysiology

SDV2014, Eforie Nord, Romania
11-12 July 2014

Abstract book



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 5th 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 EEG, EMG and transcranial magnetic stimulation. Again, we have important guests who have accepted our invitation for this event. Reinhard Dengler is the treasurer of the International Federation of Clinical Neurophysiology, and also a great friend of Romania. Corinne Pottier, for those of you who don't know, is not a stranger to us; she was on our side when we had our first National Conference, and now she's back among friends. For the first time, we have a guest from "Down Under". Ria Arnold is here to share us important data regarding neuropathies and kidney disease, in fair exchange with Romanian hospitality and friendship. When we complete a diagnostic work-up, after the clinical examination and the electrophysiologic tests, we often need the help of the neuropathologist, and our colleague Alexandra Bastian will give us a brief orientation regarding nerve and muscle biopsy. Irina Constantinescu participates again at our scientific events, with a very interesting topic - REM sleep behavior disorder.Then, there are the workshops. Since these are practically orientated, we strongly recommend to all attendees to participate actively, to ask questions, to try to actually work. It is our aim that these workshops are hands-on.

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 5th Edition of the Summer School in Clinical Neurphysiology!

Sincerely,

Tudor Lupescu M.D. Ph.D.

ASNER President

contact@asner.org

http://www.asner.org

Ioana Mindruta, M.D. Ph.D.

ASNER Vice-President

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

ioanamindruta@me.com

Ionela Codita, M.D. Ph.D.

ASNER Secretary

Neurology Department of Elias University Emergency Hospital, Bucharest, Romania

codion2001@yahoo.com

Ana-Maria Cobzaru, M.D.

ASNER Treasurer

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

cobzarica@yahoo.com

Mihai Moldovan, MD, PhD

ASNER Scientific director

Copenhagen University, Denmark and "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

moldovan@sund.ku.dk

Friday July 11th

12.00 – 13.00 Welcome cocktail

13.00 – 13.15 Opening remarks

13.15 – 14.00 Opening lecture:

EMG in the diagnosis of neuropathy and myopathy - Reinhard Dengler

14:00- 18:30 EEG workshop 1

14.00 –16.00 EEG report

16.00 – 16.15 Coffee break

16.15 – 18.30 Sleep patterns on EEG traces

14:00- 18:30 EMG workshop 1

Electrodiagnostic investigations in selected clinical cases: Pitfalls in the diagnosis of motor neuron disease / Practical demonstrations (Reinhard Dengler and Ana-Maria Cobzaru)

16.00 – 16.15 Coffee break

Transcranial Magnetic Stimulation – Practical demonstration (Tudor Lupescu)

20:00 Dinner

Saturday, July 12th

9:00- 10:45 Plenary session 1 (Chair, Tudor Lupescu)

9:00-9:45 Update ALS 2014 –Reinhard Dengler (DE)

9:45-10:05 Clinical approach to peripheral neuropathy (Tudor Lupescu)

10:05-10:35 Indications and limitations of muscle and peripheral nerve biopsy in the actual neuromuscular diagnostic work-up (Alexandra Bastian)

10:35-10:50 Coffee break

10:50- 12:10 Plenary session 2 (Chair, Mihai Moldovan

10:50 - 11:20 Neuropathy associated with kidney disease (Ria Arnold, Australia)

11:20 – 11:50 An update on mitochondrial disorders (Corinne Pottier, FR)

11:50 – 12:10 Nerve conduction velocity. Why do we really measure it? (Mihai Moldovan)

12:10- 13:00 Plenary session 3 (Chair, Ioana Mindruta)

12:10-12:30 Electroencephalographic patterns in epilepsies related with focal cortical dysplasia – non invasive versus invasive studies (Ioana Mindruta)

12:30-13:00 REM sleep behavior disorder: from parasomnia to neurodegeneration (Irina Constantinescu)

13:00-14:00 Lunch

14.00 – 18.00 EEG workshop 2

Advanced applications

14:00 – 18:00 EMG workshop 2

Advanced laboratory tests for neuromuscular disease (Cristina Mambet, Synevo)

Life-threatening lactic acidosis occurring in adults with rare mutations of mtDNA : about three cases (Corinne Pottier, FR)

16.00 – 16.15 Coffee break

Electrophysiological Assessment of Proximal Median Neuropathy (Ionela Codita)

Special electrodiagnostic neurographic techniques with immediate application (Mircea Moldovan)

Update ALS 2014

Reinhard Dengler

Department of Neurology, Hannover Medical School, Hannover, Germany

The following Update of Amyotrophic Lateral Sclerosis (ALS) will deal with genetics, protein aggregates and associated pathomechanims, the association between motor neuron disease and frontotemporal lobe dementia (FTLD) , the current diagnostic criteria including elctrophysiology, advances in imaging and experimental and symptomatic treatment and treatment trials.

Several mutations have been described in familial ALS (about 10 % of ALS cases) with SOD-1, FUS and TARDP being the most important. The most frequent mutation is a very recently described hexanucleotid repeat in C9ORF72. Most of the mutations and also sporadic ALS (about 90 % of cases) are characterized by protein aggregates and inclusions with TDP43 aggregates in sALS as the most significant ones. It has been hypothesized that the protein aggregates, especially TDP43, show a prion-like propagation similar to other neurodegenerative diseases. These aggregates also form the link to some tau-negative types of FTLD which occurs in about 20 % of ALS cases. Although modern imaging does not yet positively contribute to ALS diagnosis it has produced very interesting results concerning pathophysiology. The gold standard of ALS diagnosis are still the revised El Escorial Criteria (EEC) which are, however, very insensitive and allow probable or definite diagnosis only relatively late in the course of the disease. The new Awaji Criteria (AC) used in addition to the EEC regard fasciculations in the clinical ALS context as an EMG sign of active denervation. Several studies have shown that the AC are more sensitive than the EEC alone and equally specific. Currently the only licenced drug for treatment of ALS is the marginally effective Riluzole. Hopes are directed to stem cell transplantation and to nonsense oligonucleotides in certain forms of fALS. In view of the lack of an effective therapy symptomatic treatment to improve quality of life plays an important role in ALS care.

Workshop: EMG in the diagnosis of neuropathy and myopathy

Reinhard Dengler

Prof. MD, PhD

dengler.reinhard@mh-hannover.de

Born in Plattling, Bavaria, Germany, Reinhard Dengler studied medicine at the Ludwig-Maximilians-University and at the Technical University of Munich, Germany. He obtained his neurological and scientific training at the Technical University of Munich, Germany, and at the University of Alberta, Edmonton, Canada. In 1989, he became Full Professor of Neurology at the University of Bonn, Germany. In 1992, he was appointed Full Professor and Chairman of the Department of Neurology at Hannover Medical School, Germany. He is renowned for his research in clinical and experimental neurophysiology, neuromuscular diseases and movement disorders. His scientific work was awarded with the Richard-Jung-Award of the German Society of Clinical Neurophysiology, and the Theophile-Gluge-Award of the Royal Belgian Academy of Sciences and Fine Arts.

Functions in scientific societies among others:

President of the German Society of Clinical Neurophysiology (since 2013)

Member of the Executive Committee of the International Federation of Clinical Neurophysiology (since 2006)

Foreign Member of the Bulgarian Academy of Sciences (since 2003)

Member of the Board of the German Society for Neuromuscular Diseases (since 2005)

Member of the Scientific Council of the German Society for Dystonia

Member of the Supervisory Board of the International Foundation for Neurobionics

Continuing IFCN treasurer (since 2014)

Clinical approach to peripheral neuropathy

Lupescu T.,

Spitalul Clinic de Urgenta "Prof Dr Agrippa Ionescu"

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 2013 he was also member of the Neurophysiology Subcommittee of ENS

Peripheral neuropathies are among the most frequent clinical problems for electromyographists. This presentation tries to set up a few clinical rules that can be used for orientation in the nature and potential treatments in neuropathies. Combining characteristics regarding the weakness (symmetrical or asymmetrical, focal or generalized, proximal and/or distal), the involvement of the sensory and the autonomous system, involvement of the upper motor neuron, the temporal evolution of the symptoms, can result in logical patterns that help us in making a correct diagnosis, and choose the right treatment.

Workshop: Transcranial Magnetic Stimulation – Practical demonstration

Indications and limitations of muscle and peripheral nerve biopsy in the actual neuromuscular diagnostic work-up

Alexandra Bastian 1,2, Marilena Alexianu 1, Emilia Manole 3

1-Colentina Clinical Hospital, Bucharest - Department of Pathology; 2-Carol Davila University of Medicine and Pharmacy, Bucharest; 3-Victor Babes National Institute of Pathology, Bucharest

In the recent years, major advances in the alternative diagnostic methods to evaluate both muscle and peripheral nerve diseases, especially in the field of molecular genetics and neurophysiology, greatly improved the sensitivity and specificity of the diagnosis and challenged some of the indications for neuromuscular biopsies, as invasive procedures.

Our presentation aimed to underline basic practical issues concerning the decision to perform a muscular or combined muscle and nerve biopsy by providing a short update on the selection criteria, timing of the procedure, clinical informations required by the neuropathologist, biopsy methods, tissue processing techniques and main pathological patterns. Based on our experience, we highlight the usefulness of specific morphological data in carefully selected cases for the complex evaluation of the patient, by presenting the main types of neuromuscular diseases in which a biopsy is clearly indicated and is likely to significantly contribute to the diagnosis, but also the cases where the biopsy is not needed or even contraindicated.

Using illustrative images of our cases, we will advocate for the crucial role of muscle and nerve biopsy in specific circumstances, when performed and processed in specialised centres and in multidisciplinary approach.

Alexandra Eugenia Bastian

Lecturer, MD, PhD

aleca.bastian@yahoo.com

Alexandra Eugenia |Bastian, M.D, Ph D

Pathology Lecturer, Carol Davila University of Medicine and Pharmacy, Bucharest – Faculty of Dental Medicine

Senior general pathologist specialised in neuromuscular pathology (Mainz-Germany, New York- USA), Colentina Clinical Hospital, Bucharest - Department of Pathology.

Neuropathy associated with kidney disease

Ria Arnold

UNSW Sydney, Australia

Neurological complications are highly prevalent in patients with Chronic Kidney Disease (CKD). The systemic nature of CKD causes a variety of neurological disorders potentially affecting all levels of the nervous system. The most common neurological complication of CKD is peripheral neuropathy which typically manifests as a slowly progressive symmetrical length-dependent neuropathy of insidious onset and affects 60-90% of patients with severe CKD. These conditions have significant impacts not only on patient morbidity due to pain, weakness, reduced exercise capacity and disability, but also increased mortality risk. Early detection and management of these conditions in provide a window of opportunity to reduce their impact at later stages. Our group have examined the pathophysiology of peripheral neuropathy across the spectrum of chronic kidney disease (CKD) using clinical electrodiagnostic measures in combination with more complex electrophysiological measures known as nerve excitability techniques. This lecture will outline the clinical presentation, prevalence and impact of neuropathy in CKD and discuss evidence regarding the pathophysiology of neuropathy in CKD with specific reference to the use of electrophysiology in clinical research.

Ria Arnold

PhD

r.arnold@unsw.edu.au

Ria Arnold is a Postdoctoral Fellow at the Translational Neuroscience Facility, School of Medical Sciences, UNSW.

Ria is an Accredited Exercise Physiologist. Her research focuses on the neurological complications that occur in diabetes and chronic kidney disease. Her studies utilize neurophysiological techniques to investigate the mechanisms underlying nerve dysfunction and aim to develop physiological biomarkers for early detection of neuropathy in acquired metabolic diseases.

LIFE-THREATENING LACTIC ACIDOSIS occuring in ADULTS with rare MUTATIONS of mtDNA : about THREE CASES

Corinne Pottier, MD, Anthony Behin, MD, Mylene Gilleron, PharmD, Tarek Sharshar, MD, PhD, Bruno Eymard,MD, PhD, Anne Lombes, MD, PhD, C laude Jardel, PharmD, PhD and Pascal Laforet, MD.

Institute of Myology, Hospital Pitié-Salpêtrière, Paris, France

Objective: To report three observations of life-threatening lactic acidosis occurring in adults with rare mutations of mtDNA.

Background: Acute metabolic crisis are often encountered in childhood- onset mitochondrial diseases (MD), whereas adults generally present with progressive neurological or muscle involvement.

Design/Methods: Investigations included blood analysis, EMG, and muscle biopsy for histoenzymological and respiratory chain analysis. Mitochondrial DNA analysis was performed in muscle, blood, buccal cells, and urine.

Results: Patients were one woman and two men, aged 27, 32 and 32 years. They presented with slowly progressive muscle weakness and fatigability, compatible with a normal life, several years before the acute metabolic crisis. Two patients experienced prodromal abdominal pain and vomiting; all of them developed acute respiratory failure and collapse needing mechanical ventilation. Concomitant status epilepticus occurred in one patient. Lactic acidosis was present in all cases (20, 24 and 30 mM) necessitating extra-renal dialysis.

Hepatic cytolysis was constant, contrasting with moderately increased C K levels (3N to 5N). No triggering factor could be identified. All patients fully recovered after prolonged intensive care, but resting lactate levels constantly remained elevated up to 8 mM. Muscle biopsy showed numerous ragged-red and COX-negative fibers in two patients, and lipidosis in the third one. Combined deficiency of mtDNA-dependant respiratory complexes was not explained by mtDNA depletion or deletion. Heteroplasmic pathogenic point mutations were detected in tRNA genes: MT-TL1 (m.3280G>A; m.3258C >T) and MT-TK (m8363A>G). Tissue distribution was heterogeneous for the MT-TL1 mutations but homogeneous for the MT-TK mutation (as observed with recurrent MELAS and MERRF mutations).

Conclusions: Life-threatening lactic acidosis may be inaugural or a major clinical manifestation in adults with mtDNA mutations. Prolonged intensive care may obtain dramatic and sustained improvement.cv

Corinne Pottier

MD, PhD

cwpottier@yahoo.fr

Current position :

Neurologist, Assistant Professor, providing patient care, thrombolysis, electromyography, teaching and consulting in the Department of Neurology of Pontoise Hospital and in Pitié-Salpêtrière Hospital, Department of Neurophysiology (PrFournier) (France)

2004-2008 : Neurologist, providing patient care, electromyography, teaching and consulting

Department of neurology, University Bucarest Hospital (Romania)

2013-2014 : moderator of the neurovascular chain for regional health

An update on mitochondrial disorders

Mitochondrial disorders (MIDs) are very heterogeneous pathologies both clinical and genetic. Neurological involvement is common and can affect the central and peripheral nervous system and the muscle. Combination of these three impairments is strongly suggestive of MIDs. Although the symptomatology is very various, some clinical signs orient more particularly to a mitochondrial origin as exercise intolerance, progressive external ophthalmoplegia without fluctuation or sensory neuropathy. These involvements can be isolated but more often integrate themselves in multisystem disease whose recognition will quickly orient molecular analyzes. Etiological investigation of MIDs involving the SNP and / or muscle based on a diagnostic process that looks at each step of the arguments for a multisystemic impairment. EMG is important in this etiological process: association of myopathy and usually sensory neuropathy often paucisymptomatic.

Nerve conduction velocity. Why do we really measure it?

Moldovan M. (1,2)

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

Myelinated peripheral axons are biological structures specialized in energy-efficient conduction of action potentials. Axonal conduction involves a complicated voltage-gated ion channel machinery comprised of several types of Na+ channels (mediating the inward depolarizing currents), K+ channels (mediating the outward rectifying currents) and hyperpolarization-activated cyclic nucleotide-gated channels(mediating the inward rectifying currents), as well as energy-dependent pumping mechanisms required to maintain the ionic concentration gradients across the membranes. Additionally, the spatial distribution of these channels is tightly controlled by axon-Schwann cell interactions. In spite of this complexity, the prevailing neurophysiological message about conduction is linked to "nerve conduction velocity is 6 fold the largest myelinated axon diameter" established nearly a century ago by cat physiologists. This proportionality between electrophysiology and morphology leads to the oversimplification that "a low conduction velocity reflects a demyelinating neuropathy". Undoubtedly this is important to consider in the clinical context because a demyelinating neuropathy is potentially treatable. Nevertheless, the question remains: "how low?". Various criteria and normative values exist, however, they often lead to "borderline reduced conduction velocities". This presentation pleads for a more pathophysiologic approach to understanding the factors contributing to nerve conduction velocity and how the electrodiagnostic value of low conduction velocity can be helped by other electrophysiological measures such as response amplitude, and nerve excitability studies.

Mihai Moldovan

Assoc. Prof., MD, Ph.D.

moldovan@sund.ku.dk

Mihai Moldovan obtained his medical degree from "Carol Davila" University Bucharest in 1999. Based on his research interests as a student, after graduation he was selected to work in the group of prof. Christian Krarup that continues the Copenhagen neurophysiology school founded by prof. Fritz Buchthal in the 60' with the aim of translating experimental neurophysiology into clinical electrodiagnostic procedures for patients with nerve and muscle disease. Mihai Moldovan obtained his PhD degree in neurophysiology from Copenhagen University in 2004 where he continues his scientific career as associate professor. His research is focused on distinguishing the contribution of voltage-gated ion channel dysfunction to pathophysiology of neurodegenerative disorders, with particular emphasis on peripheral nerve excitability testing. While based in Copenhagen, Mihai Moldovan continued to collaborate with prof .Leon Zagrean at "Carol Davila" University, Department of Physiology and Neuroscience. In 2011, he founded the COMAEEG.RO international network, bringing together Romanian neuroscientists, clinicians and engineers dedicated to improving the monitoring of the comatose brain excitability. Emerging from these wide research interests are not only original publications and review articles in international journals but also educational chapters in neuroscience and neurophysiology textbooks in Romanian language. Mihai Moldovan has scientific duties in several international organizations including International Brain Research Organization (IBRO) and the European Federation of Neuroscience Societies (FENS). He is also founder and acting president of the National Neuroscience Society of Romania (SNN) and founder of the Romanian Society of Electrodiagnostic Neurophysiology (ASNER) for which he now serves as scientific director. For his activity he received several international and national prizes and he was recently appointed editorial board member for Clinical Neurophysiology, the official scientific journal of the International Federation of Clinical Neurophysiology (IFCN).

Electroencephalographic patterns in epilepsies related with focal cortical dysplasia – non invasive versus invasive studies

Ioana Mindruta, Andrei Barborica, Mihai Malaia, Cristian Donos, Jean Ciurea

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

Focal cortical dysplasias (FCD) are one of the leading etiologies for surgically remediable drug resistant epilepsies. Pathologic correlates show abnormal lamination and defects of neuronal migration and differentiation.

Intracranial recordings of electrical activity during presurgical evaluation display specific patterns mainly associated with FCD type IIb. These patterns are also highly recognizable on scalp EEG recordings as well during long term videoEEG monitoring.

The presentation will show relevant cases and discuss the electroencephalographic activity on surface EEG based on patterns recorded during invasive exploration for presurgical work up. The syndrome associated with FCD type IIb will be the main focus of the presentation.

Ioana Mindruta

Assoc.Prof. MD, PhD

ioanamindruta@me.com

45-year old, neurologist, with competence in electrophysiology and special interest in epileptology, mainly presurgical exploration for epilepsy surgery. 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 and member in the board of Romanian Society of Neurology since 2013.

REM sleep behavior disorder: from parasomnia to neurodegeneration

Irina Constantinescu

University of Medicine and Pharmacy "Grigore T. Popa" Iasi

REM sleep behavior disorder (RBD) is characterized by a mixture of REM sleep and wakefulness criteria, resulting in simple or complex motor behaviors which reflect vivid dream content. This parasomnia is characterized by abolition of muscle atonia which normally define the REM sleep stage. The precise mechanisms of RBD are still debated, a damage of pontomedullary brainstem structures being generally incriminated. The study of neural processes underlying RBD may provide a unique window to understand sleep functions related to cognition and brain plasticity.

Importantly, there is recent evidence for an association of RBD with neurodegenerative diseases, in particular with synucleopathies (Parkinson's disease, Lewy body dementia or multiple system atrophy). It has been shown that RBD manifestations may precede with 10 to 15 years the onset of the disease, the abnormal motor behaviors during REM representing, therefore, a potential early marker of neurodegeneration. The time window between the REM sleep disturbances and the neurodegenerative disease "per se" may have major implications for the development of neuroprotective strategies.

The purpose of this presentation is to review the main clinical and paraclinical (including polysomnographical) features of RBD and to discuss the implications of RBD diagnosis in the management of neurological patients.

Irina Constantinescu

Assistant Professor, MD, PhD

irennecons@yahoo.com

Current positions

Specialty exam in Neurology, Cluj-Napoca, April 2014

Assistant Professor in Neurology, Neurological department, University of Medicine and Pharmacy "Grigore T. Popa" Iasi, March 2014

Post-doctoral fellow, POSDRU program, University of Medicine and Pharmacy "Grigore T. Popa" Iasi, June 2014

Education

PhD in Neuroscience, University of Geneva, Switzerland. Thesis: "Influence of sleep-wake states on human memory and underlying neural plasticity: insights from EEG recordings and parasomnia". Thesis advisors: Prof. S. Schwartz and Prof. M. Seeck, March 2011.

MD, University of Medicine and Pharmacy "Grigore.T.Popa" Iasi, Romania. Thesis: "Silent Cerebral Infarct - clinical study on a representative group of patients from the Neurological Department, Rehabilitation Hospital, Iasi". Thesis advisor: Prof. C.D. Popescu, September 2005.

Competences

Certificate in Electroencephalography, Swiss Society of Clinical Neurophysiology, Geneva, Switzerland, November 2013

Certificate in "Sleep and its pathology", Inter-University Diploma, University Pierre et Marie Curie Paris VI, Paris, France, October 2007

Pitfalls in the diagnosis of motor neuron disease

Ana-Maria Cobzaru

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

Ana-Maria Cobzaru

MD, PhD

cobzarica@yahoo.com

Neurologist with competence in electrophysiology and special interest in clinical neurophysiology working in the University Emergency Hospital in Bucharest as general neurologist and in private sector as neurophysiologist.

There will be brought to the attention of participants (for discussing purpose) 2 interesting cases of motor neuron disease of which the initial diagnosis was quite another: polyneuropathy or myopathy.

The clinical evolution and electrophysiological changes during time were those who guides us to the final diagnosis.

Electrophysiological Assessment of Proximal Median Neuropathy

Ionela Codita

Neurology Department of Elias University Emergency Hospital, Bucharest

Ionela Codita

MD, PhD

codion2001@yahoo.com

Proximal median neuropathy is uncommon compared with median entrapment at the carpal tunnel. Electrodiagnostic testing plays a role in locating the lesions in these unusual cases. In the EMG workshop we intend to discuss electrophysiologic evaluation in suspected proximal median neuropathy and to illustrate some stimulation procedures of the median nerve and recording with surface electrodes over the flexor pollicis longus and also over the pronator quadratus. After our demonstration, each of the participants will be given the opportunity to stimulate and record and afterwards , discuss their results and questions.

Ionela Codita is currently working as a Senior Neurologist in the Neurology Department of Elias University Emergency Hospital in Bucharest. She has graduated "Carol Davila" University of Medicine and Pharmacy in 1995 and became a specialist in Neurology in 2000.

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 Neurophysiopathology 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).

She also manifests interest in Epilepsy, Motor Neuron Diseases and Movement Disorders. Dr. Ionela Codita is a member of the Romanian Society of Neurology, affiliated to the ENFS (European Federation of Neurological Societies) and to the WFN (World Federation of Neurology) and since May 2013 she is the secretary of ASNER-The Romanian Society of Electrodiagnostic Neurophysiology.

Special electrodiagnostic neurographic techniques with immediate application

Mircea Moldovan

Neurology Department of Elias University Emergency Hospital, Bucharest

Mircea Moldovan

MD, PhD

mirceaemg@gmail.com

"The rare cases are the most common," used to say Romanian neurology professor Vlad Voiculescu (1913-2001). A neurophysiologist must be constantly prepared to face uncommon situations. We illustrate: "split hand" syndrome, the difference between the lateral and medial gastrocnemius recording, proximal monitoring by "tap reflex ", establishing tremor frequency , investigating the accessory peroneal nerve, Martin-Gruber Anastomosis in Carpal Tunnel Syndrome, investigating the dorsal sural nerve, SRAR test in sensory polyneuropathies etc.

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.

We would like to thank our sponsors and partners:

TEVA

MEDISON
Delivering innovative healthcare

WÖRWAG PHARMA

synevo
SERVICII MEDICALE DE LABORATOR

AFCO 90 s.r.l.

MERCK

NOVARTIS