RoNEURO

Foundation for the Study of Nanoneurosciences and Neuroregeneration
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UMF
IULIU HAȚIEGANU
UNIVERSITY OF
MEDICINE AND PHARMACY
CLUJ-NAPOCA

FACULTY of MEDICINE
DEPARTMENT of
NEUROSCIENCES

Facultatea de Medicină Cluj

Seminars

Department of Neurosciences
University of Medicine and Pharmacy "Iuliu Hatieganu"
Cluj-Napoca | Romania

IN CONJUNCTION WITH

3RD NEUROSONOLOGY TEACHING COURSE

APRIL 2ND - 3RD, 2015

''RONEURO'' INSTITUTE FOR NEUROLOGICAL RESEARCH AND DIAGNOSTIC /
INSTITUTUL RONEURO - CENTRUL DE CERCETARE SI DIAGNOSTIC
AL BOLILOR NEUROLOGICE
CLUJ-NAPOCA | ROMANIA | MIRCEA ELIADE 37

Welcome Address

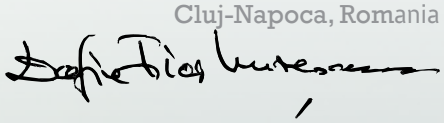
It is a pleasure to welcome you to the 24th edition Seminars of the Neurosciences Department, in conjunction with 3rd Neurosonology Teaching Course, April 2nd-3rd, 2015. The seminar is hosted by the Department of Neurosciences, Faculty of Medicine, "Iuliu Hatieganu" University of Medicine and Pharmacy ,Cluj-Napoca and "RoNeuro" Institute for Neurological Research and Diagnostic.
This seminar aims to establish itself as a highly useful framework that will enable local specialists to benefit from the expertise of our invited speakers who are part of associated international faculty of our Department of Neurosciences Cluj-Napoca, Romania and **RoNeuro** Science network. Our scope is to flourish over years and set up an educational vector aiming to meet our junior and senior specialists' needs.

In contrast to large international conferences, the intention behind these seminars is to create an informal and intimate setting, which hopefully will stimulate open discussions. As organizers, we would therefore be deeply grateful if you participate and share your time with us.

We are looking forward to your active participation in this educational event!

With consideration,

Prof. Dr. Dafin F. Muresanu,
Chairman Department of Neurosciences, Faculty of Medicine,
"Iuliu Hatieganu" University of Medicine and Pharmacy,
Cluj-Napoca, Romania



Organizers

INSTITUTE FOR NEUROLOGICAL
RESEARCH AND DIAGNOSTIC

FOUNDATION FOR THE STUDY
OF NANONEUROSCIENCES AND
NEUROREGENERATION

"IULIU HAŢIEGANU" UNIVERSITY
OF MEDICINE AND PHARMACY

FACULTY OF MEDICINE
DEPARTMENT OF NEUROSCIENCES
UNIVERSITY OF MEDICINE AND PHARMACY
"IULIU HATIEGANU"

CAROL DAVILA
UNIVERSITY
BUCHAREST


PROGRAM
COORDINATOR

PROGRAM COORDINATOR

Cristina Tiu
/Romania
Associated Professor
Carol Davila University
Bucharest

I always considered myself an optimistic person but still there are certain things which
I find depressing, and a CV is one of those things. Suddenly it is not about you anymore, but about a person who had a number of achievements which are rarely the things you find interesting about yourself, and all your life is compressed in half a page.
I have graduated the University of Medicine and Pharmacy "Carol Davila" in Bucharest in 1987 and I started my career in neurology in 1991, as a resident in the Department of Neurology of the University Hospital Bucharest, the same place where now I am Associated Professor and Head of the Stroke Unit. I have two favorite domains:
vascular pathology and multiple sclerosis. My main interest is in cerebrovascular diseases, I am coordinating a teaching course for cervical and cerebral ultrasonography and I followed the European Master in Stroke Medicine Programme in Austria.
My involvement in MS field started in year 2000, when the first patients in Romania were treated with DMTs due to a constant effort (read fight) of three people: Prof. Ioan Pascu, Prof. Alexandru Serbanescu and Prof. Ovidiu Bajenaru. Since then, I have followed-up hundreds of patients with MS, and I am now the coordinator of the University Hospital Bucharest Center for the National Programme for treating the Patients with Multiple Sclerosis. I have participated, together with my colleagues in the majority of the main International Clinical Trials in MS in the last decade and we had also several original scientific work related to clinical aspects of MS patients. I am one of the two representatives of the Romanian Society of Neurology in the Board of ECTRIMS.
In the end of my half page, I am looking forward to future goals: development of basic research in MS in Romania, a National MS Registry, better drugs, a better education for patients and doctors, a better me...


COURSE PROGRAM

Course Program

THURSDAY, APRIL 2ND, 2015

10.00 - 11.30 – Ultrasonographic evaluation of the arterial wall: plaques
/Associate Professor Dr. Cristina Tiu

– Ultrasonographic evaluation of the arterial wall: ICA stenosis (I): methods of assessment, diagnostic criteria, grading of stenosis
/Associate Professor Dr. Cristina Tiu

11.30 - 11.45 – Coffee Break

11.45 – 13.30 – Ultrasonographic evaluation of the arterial wall: ICA stenosis (II): methods of revascularization, selection criteria, post-revascularization aspect
/Associate Professor Dr. Cristina Tiu

– Ultrasonographic aspects of the arterial wall: ICA occlusion, ICA dissection
/Associate Professor Dr. Cristina Tiu

13.30 – 14.30 – Lunch

14.30 – 16.00 – Hands On (Part 1)
/Associate Professor Dr. Cristina Tiu

16.00 – 16.15 – Coffee Break

16.15 – 18.00 – Hands On (Part 2)
/Associate Professor Dr. Cristina Tiu

Course Program

FRIDAY, APRIL 3RD, 2015

09.00 – 11.00 – Hands On (Part 3)
/Associate Professor Dr. Cristina Tiu

11.00 – 11.15 – Coffee Break

11.15 – 13.00 – Hands On (Part 4)
/Associate Professor Dr. Cristina Tiu

13.00 – 14.00 – Lunch

14.00 – 16.30 – Hand On (Part 5)
/Associate Professor Dr. Cristina Tiu

16:30–17:00 – FINAL EXAMINATION


ABSTRACT

NEUROSONOLOGY TEACHING COURSE

Extracranial carotid disease represents one of the main causes of of disabling stroke or death. Carotid stenoses may result in brain ischemia either through direct hemodynamic impairment of the cerebral blood circulation or, more commonly, as a source of thromboembolism.

Carotid ultrasound is an excellent technique to assess the vessel walls and plaques. Using Doppler ultrasound, detection of diseases as well as monitoring of pharmaceutical and interventional treatment in carotid arteries are feasible. Atherosclerotic changes start developing in the carotids and aorta simultaneously, actually preceeding plaque occurrence in the coronary arteries. Doppler ultrasound is a non-invasive simple, safe, fast, reliable, reproducible and inexpensive method to evaluate and characterize arterial wall thickening, atheroscleortic progression and other arterial wall diseases like dissection, vasculitis. This technique permits us to accurately quantify the intima media thickness (IMT), which is generally considered as an early marker of atherosclerosis. Measurement of IMT is performed on both common carotid arteries, and the normal values range between 0,01 and 1.0 mm.
Regarding the atherosclerotic plaques, the following parameters are evaluated: (a) size, (b) surface morphology, (c) internal properties. These parameters and properties are important for evaluation, treatment and follow-up of atherosclerotic lesions. Plaques are divided into three major types by the echogenicity inside the plaques: (a) calcified (hyperechoic; calcified lesions accompanied by acoustic shadow), (b) low echo (hypoechoic or echolucent) (areas with low echogenicity ascompared to the control structure), and (c) is echoic (echogenicity comparable to that of the control structure).

Percent stenosis of area of the the internal carotid artery, is measured according to either the criteria of the North American Symptomatic Carotid Endarterectomy Trial (NASCET) or to the criteria of the European Carotid Surgery Trial (ECST). In addition, blood flow (maximum velocity, etc.) through the stenotic lesion is also measured.

The criteria for ICA stenosis greater 70% but less than near occlusion are: a) ICA PSV is >230 cm/sec and visible plaque and luminal narrowing are seen at gray-scale and colour Doppler ultrasound; b) the ICA/CCA PSV ratio >4 and ICA EDV >100 cm/sec. The criteria for near occlusion of the ICA are: a) velocity parameters may not apply, since velocities may be high, low, or undetectable; b) diagnosis is established primarily by demonstrating a markedly narrowed lumen at colour or power Doppler US.

For the total occlusion of the ICA are: a) no detectable patent lumen at gray-scale US and no flow with spectral, power, and colour Doppler US; b) there may be compensatory increased velocity in the contralateral carotid

Carotid artery stenosis is a problem commonly seen in clinical practice and differentiation between symptomatic and asymptomatic patients with carotid artery stenosis is essential to tailor therapy properly.

Notes

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