Surgical Treatment of the Craniocervical Junction

A Congress of Neurological Surgeons Course for 5th & 6th Year Neurosurgery Residents

Wednesday and Thursday, September 2–3, 2015

Iris S. and Bert L. Wolstein Research Building
Case Western Reserve University
Cleveland, Ohio

An educational activity provided by
Overview

This two-day course is designed for 5th and 6th year neurosurgery residents who seek an intensive, hands-on course in the surgical management of pathologies of the craniocervical junction. Pathologies to be addressed include vascular diseases, tumors, deformities and trauma. Anatomical considerations, patient indications for intervention, decision making, and surgical approaches and techniques will be discussed. Faculty will demonstrate repair, fixation and reconstruction techniques using 3-D imaging, and state-of-the-art devices and instrumentation. Small class size and emphasis on the practicum maximizes faculty and resident interaction, and the opportunity for expert guidance and skill development.

Objectives

After attending this program participants will be able to:

• Describe the anatomical factors involved in the surgical management of pathologies of the craniocervical junction
• Discuss patient indications and the surgical decision making process for selecting appropriate approaches, techniques and devices
• Demonstrate skills in CT and MRI navigation and image guidance
• Demonstrate surgical approaches, techniques and application of devices on tissue models
• Plan intraoperative steps to prevent complications and maximize outcomes

General Information

Meeting Location
Iris S. and Bert L. Wolstein Research Building Auditorium
Case Western Reserve University
2103 Cornell Road
Cleveland, OH 44106
A map and directions will be sent with your confirmation letter.

Accommodations
Courtyard by Marriott—University Circle
2021 Cornell Road
Cleveland, OH 44106
216-791-5678
The hotel is within walking distance of the conference venue. For those who drive, valet parking is $20 for overnight guests.

Acknowledgments

This activity will be supported by grants from industry. A complete listing of supporters will be provided in the syllabus materials distributed at the meeting. Acceptance of funding in support of this program does not constitute endorsement of any product or manufacturer.
Faculty

Nicholas C. Bambakidis, MD  
*Course Director*  
Associate Professor of Neurological Surgery  
Case Western Reserve University  
School of Medicine  
Director, Cerebrovascular and Skull Base Surgery  
University Hospitals Neurological Institute  
University Hospitals Case Medical Center  
Cleveland, OH

Sepideh Amin-Hanjani, MD, FAANS, FACS, FAHA  
Professor and Program Director  
Co-Director, Neurovascular Surgery  
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University of Illinois at Chicago  
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Zoher Ghogawala, MD  
Charles A. Fager Chairman  
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Department of Neurosurgery  
Burlington, MA  
Associate Professor, Tufts University  
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David J. Hart, MD  
Department of Neurosurgery  
Wake Forest Baptist Medical Center  
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Louis J. Kim, MD  
Assistant Professor of Neurological Surgery and Radiology  
Associate Chief of Neurological Surgery  
University of Washington  
Attending Neurosurgeon  
Harborview Medical Center  
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Semaan T. Maroun, MD  
Assistant Professor of Otolaryngology  
CWRU School of Medicine  
Associate Director Otology, Neurotology and Balance Disorders  
UH Case Medical Center  
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Cliff A. Megerian, MD  
Professor and Chair, Department of Otolaryngology—Head and Neck Surgery  
Richard W. and Patricia R. Pogue Chair in Auditory Surgery and Hearing Sciences  
Case Western Reserve University  
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Director, Department of Otolaryngology—Head and Neck Surgery  
Medical Director of Cochlear Implantation University Hospitals Case Medical Center  
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Peter Nakaji, MD  
*Professor of Neurosurgery*  
Director, Neurosurgery Residency Program  
Director, Minimally Invasive Neurosurgery  
Barrow Neurological Institute  
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Phoenix, AZ

Michael P. Steinmetz, MD  
Associate Professor of Neurological Surgery  
Case Western Reserve University School of Medicine  
Chair, Department of Neurosciences  
MetroHealth Medical Center  
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Peter A. Weisskopf, MD, FACS  
Head, Neurotology Section  
Co-Director, Acoustic Neuroma Center  
Barrow Neurological Institute  
St. Joseph's Hospital and Medical Center  
Phoenix, AZ

Joseph M. Zabramski, MD  
Professor of Neurological Surgery  
Chair, Section of Cerebrovascular Surgery  
Barrow Neurological Institute  
St. Joseph's Hospital and Medical Center  
Phoenix, AZ

The commitment to exceptional patient care begins with revolutionary discovery. University Hospitals Case Medical Center is the primary affiliate of Case Western Reserve University School of Medicine, a national leader in medical research and education and consistently ranked among the top research medical schools in the country by U.S. News & World Report. Through their faculty appointments at Case Western Reserve University School of Medicine, physicians at UH Case Medical Center are advancing medical care through innovative research and discovery that bring the latest treatment options to patients.
Program Agenda

Registration and continental breakfast will begin at 7:00 am each day. The program will consist of the following lectures and laboratory sessions. Exact times are to be determined.

**Wednesday, September 2, 2015**

Anatomy of the Posterior Fossa  
*Joseph M. Zabramski, MD*

Skull Base Approaches to the Craniovertebral Junction  
*Nicholas C. Bambakidis, MD*

Guest Lecturer/Topic  
*Zoher Ghogawala, MD*

Management of Aneurysms of the Vertebrobasilar Circulation  
*Peter Nakaji, MD*

Endovascular Management of Aneurysms and Vascular Lesions of the Posterior Circulation  
*Louis J. Kim, MD*

Lateral Transpetrosal Approaches  
*Cliff A. Megerian, MD* and *Peter A. Weisskopf, MD, FACS*

**Laboratory Session 1**
- CT and MRI Navigation
- Far Lateral Craniotomy
- Condylar Drilling
- Vertebral Artery Mobilization

**Laboratory Session 2**
- Transpetrosal Approaches
- Retrosigmoid, Translabyrinthine, Transcochlear Approaches

**Thursday, September 3, 2015**

Anatomy and Biomechanics of the Occipitocervical Spine  
*Michael P. Steinmetz, MD*

Techniques and Indications for Posterior Occipitocervical Fixation  
*David J. Hart, MD* and *Nicholas C. Bambakidis, MD*

**Practical Session 3**
- Demonstration—CT Protocol with Image Guidance CO-T2
- Occiput—C1/C2 Technique
- Subaxial Spinal Fixation Techniques
Resident & Fellow Educational Grant Policy and Procedure

The policy and procedure herein describes who is eligible to participate in this two day course, what the grant will cover, and the steps to follow to apply.

Fifth & Sixth Year Neurosurgery Residents who are interested in the surgical management of pathologies involving the craniocervical junction may complete the Application Form to request an educational grant to attend this course.

The educational grant will cover the following for 18 neurosurgery residents:
- Tuition
- Lodging for up to 2 nights, room & tax only. Two residents/fellows assigned per room.
- Roundtrip airfare (nonrefundable coach) or if driving, reimbursement for mileage, tolls and parking.
- Meals & refreshment breaks at the course.

The educational grant will not cover:
- Incidentals, miscellaneous expenses at the hotel. A credit card will be required at hotel check-in.
- Transportation to and from the home city airport, and the Cleveland airport and hotel.
- Food & beverage expenses (outside the course agenda).

Procedure for course registration:

1. Submit the online application with an electronic signature from your Program Director indicating that you are currently a PGY5 or PGY6 resident in good standing.

2. Applicants will be accepted on a first-come basis. The course is limited to 18 attendees, one resident per institution. Incomplete registrations will not be considered. Register early!

3. The CNS will notify you when your application is received. A second notice from Case Western Reserve University will indicate whether you are accepted into the course or are wait-listed.

4. A formal letter will provide details about arranging air travel and hotel. Please do not arrange travel and lodging on your own, since you will not be reimbursed. CWRU’s travel agent will manage air travel and CWRU staff will manage the hotel rooming list. Two residents/fellows will be assigned per double-double sleeping room.

5. Upon hotel check-in you will need to provide a credit card for incidentals. CWRU grant funds will cover room & tax only.

6. If you need to cancel after you are accepted into the course, please contact us immediately so that wait-listed residents can be accommodated.

7. Please do not plan to bring a spouse/guest, since we cannot accommodate these individuals at the hotel or course in compliance with the AdvaMed Code of Ethics.
Application Instructions

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Wolstein Research Building, Case Western Reserve University

Application/Registration Submission
Complete and submit the online application by the deadline of August 14, 2015.

Questions
Call: 216-844-3472 or email lois.hengenius@uhhospitals.org

Cancellation Policy
If you need to cancel after you are accepted into the course, please contact us immediately so that wait-listed residents can be accommodated.

The Congress of Neurological Surgeons is the leader in neurosurgical education and innovation. We are dedicated to advancing neurosurgery, and we practice this globally by inspiring and facilitating scientific discovery and its translation to clinical practice for our members. The CNS provides its nearly 9,000 members with the educational and career development opportunities they need to become leaders and innovators in the field.

Visit www.cns.org/resident to learn about benefits especially for residents.