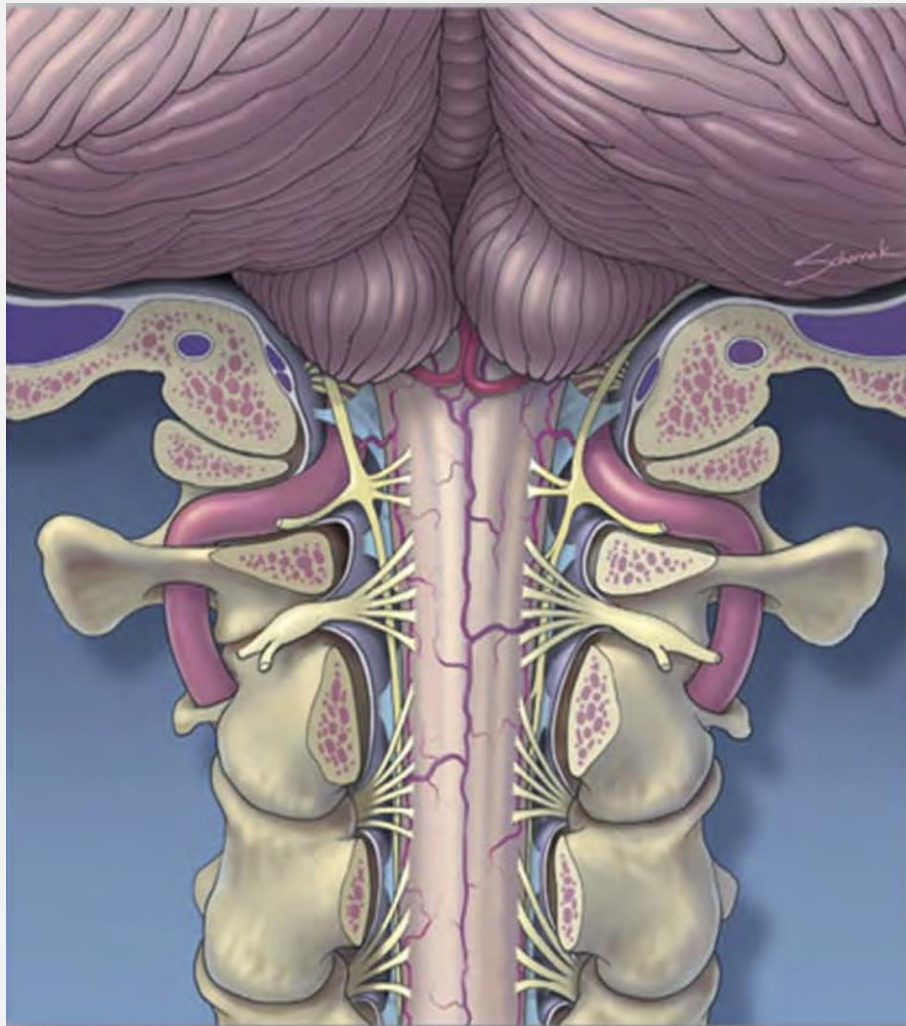


Surgical Treatment of the Craniocervical Junction

A Course for 5th & 6th Year Neurosurgery Residents

Cleveland, Ohio

August 30 – 31, 2022



Hosted by:



**University Hospitals
Neurological Institute**



**CASE WESTERN RESERVE
UNIVERSITY**
SCHOOL OF MEDICINE

Surgical Treatment of the Craniocervical Junction

Tuesday and Wednesday, August 30 – 31, 2022

Institute for Surgery and Innovation
University Hospitals Cleveland Medical Center
Cleveland, Ohio

Wolstein Auditorium
Case Western Reserve University
Cleveland, OH 44106

Laboratory Sessions – Surgical Training and Research Lab,
Biomedical Research Building, BRB B68

An educational activity provided by
UH Neurological Institute

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 course, 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

Faculty

Nicholas C. Bambakidis, MD, FAANS, FAHA

Course Director

Chair, Department of Neurological Surgery
Warren R. Selman Endowed Chair in Neurological Surgery
Director and Vice President, The Neurological Institute
Director, Cerebrovascular and Skull Base Surgery
University Hospitals Cleveland Medical Center
The Harvey Huntington Brown, Jr., Professor and Chair
Department of Neurological Surgery
Case Western Reserve University SOM
Cleveland, OH

Gabriel A. Smith, M.D.

Course Co-Director

Assistant Professor of Neurological Surgery, CWRU SOM
Medical Director, UH Spine Institute
University Hospitals Cleveland Medical Center
Cleveland, OH

Cliff A. Megerian, MD FACS

Chief Executive Officer, University Hospitals Health System
Jane and Henry Meyer Chief Executive Officer Distinguished Chair
Professor, Otolaryngology-Head & Neck Surgery, CWRU School of Medicine
University Hospitals Cleveland Medical Center
Cleveland, OH

Sepideh Amin-Hanjani, MD, FAANS, FACS, FAHA

Professor, Department of Neurosurgery
Co-Director, Neurovascular Surgery
University of Illinois at Chicago
Chicago, IL

Garni Barkhoudarian, MD

Pacific Neuroscience Institute
Neurosurgery; Co-Director Pituitary Disorders Center
Director, Adult Hydrocephalus Center
Director, Facial Pain Center; Chief, Radiosurgery Program
Director, SJCI / PNI Neuroanatomy Laboratory
Santa Monica, CA

Brian D. D'Anza, M.D.

Assistant Professor of Otolaryngology
University Hospitals Cleveland Medical Center
Cleveland, OH

Dustin J. Donnelly, M.D.

Assistant Professor of Neurological Surgery
Case Western Reserve University School of Medicine
University Hospitals Neurological Institute
University Hospitals Cleveland Medical Center
Cleveland, OH

Michael W. Groff, MD

Vice Chair, Neurosurgery
Director Spinal Neurosurgery
Co-Director, Comprehensive Spine Surgery
Brigham and Women's Hospital
Boston, MA

Yin C. Hu, M.D.

Associate Professor of Neurological Surgery
Case Western Reserve University School of Medicine
University Hospitals Neurological Institute
University Hospitals Cleveland Medical Center
Cleveland, OH

Manish Kasliwal, M.D.

Assistant Professor of Neurological Surgery
Case Western Reserve University School of Medicine
Director, Minimally Invasive Spine Surgery
University Hospitals Neurological Institute
University Hospitals Cleveland Medical Center
Cleveland, OH

Louis J. Kim, MD

Professor and Vice Chair of Neurological Surgery
University of Washington School of Medicine
Harborview Medical Center
Seattle, WA

Sarah E. Mowry, M.D, FACS

Associate Professor, Department of Otolaryngology/Head & Neck Surgery
Case Western Reserve University School of Medicine
Program Director, ENT – UH Cleveland Medical Center
University Hospitals Cleveland Medical Center
Cleveland, OH

Jeffrey P. Mullin, M.D., MBA

University at Buffalo Neurosurgery
Comprehensive Neuroscience Center
Buffalo, New York

Peter Nakaji, MD

Chair, Department of Neurosurgery at Banner –
University Medical Center Phoenix
Professor of Neurosurgery
Phoenix, AZ

Alejandro Rivas Campo, M.D.

Professor, Otolaryngology, Head & Neck Surgery, CWRU SOM
Professor, Neurological Surgery, CWRU SOM
Division Chief, Otology and Neurotology
Director, Cochlear Implant and Skull Base Programs
University Hospitals Cleveland Medical Center
Cleveland, OH

Maroun T. Semaan, M.D.

Clinical Associate Professor, Otolaryngology
Case Western Reserve University SOM
University Hospitals Cleveland Medical Center
Cleveland, OH

Peter A. Weisskopf, M.D.

Professor, Departments of Otorhinolaryngology (ENT)/Head and Neck
Surgery and Neurosurgery
Mayo Clinic
Phoenix, AZ

Joseph M. Zabramski, MD

Emeritus Professor of Neurological Surgery

Director of Clinical Neurosurgical Research

Barrow Neurological Institute & St. Joseph's Hospital and Medical Center,
Phoenix, AZ

Program Agenda

The program will consist of the following lectures and laboratory sessions. Lectures will be held in the auditorium of the Wolstein Research Building.

| Tuesday, August 30, 2022 | |
|---------------------------------|--|
| 7:30 a.m. | Registration and Continental Breakfast |
| 7:45 a.m. | Welcome and Introduction |
| 8:00 a.m. | Biomechanics and Anatomy of the Axial Cervical Spine Michael Steinmetz, M.D. |
| 8:30 a.m. | Fixation Techniques of the Occiput, Cervical, and Upper Thoracic Spine Gabriel A. Smith, M.D. |
| 9:00 a.m. | Degenerative Spinal Disease at the Craniovertebral Junction Michael Groff, M.D. |
| 9:30 a.m. | Treatment of Traumatic Injuries at the Craniovertebral Junction Jeff Mullin, M.D. |
| 10:00 a.m. | Treatment Options for Oncologic Disease at the Occipitocervical junction Dustin Donnelly, M.D. |
| 10:30 a.m. – 10:45 a.m. | Break |
| 10:45 a.m – 11:30 a.m. | Selected Cases, Discussion and Lunch Manish Kasliwal, M.D. |
| 12:00 p.m. – 3:00 p.m. | Laboratory Session – Surgical Training and Research Lab, Biomedical Research Building, BRB B68 Occipito-cervical fixation and subaxial fixation/upper thoracic spinal fixation with Lab Faculty |
| 3:00 p.m. | Anatomy of the Craniovertebral Skull Base Joseph Zabramski, M.D. |
| 3:45 p.m. | Posterolateral Skull Base Approaches – the Neurosurgical Perspective Nicholas C. Bambakidis, M.D. |
| 6:30 p.m. | Course Dinner – Venue to be determined Transportation leaves hotel at 6:00 p.m. |

| Wednesday, September 15, 2021 | |
|--------------------------------------|--|
| 8:00 a.m. | Continental Breakfast |
| 8:15 a.m. | Surgical Treatment of Posterior Vascular Malformations Peter Nakaji, M.D. |
| 8:45 a.m. | Multimodality Treatment of Posterior Circulation Aneurysms Louis J. Kim, M.D. |
| 9:15 a.m. | Revascularization of the Posterior Circulation Sepideh Amin-Hanjani, M.D. |
| 9:45 a.m. | Endoscopic Approaches to the Posterior Skull Base Garni Barkhoudarian, M.D. |

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|-------------------|--|
| 10:30 a.m. | Transpetrosal approaches – the ENT Perspective Cliff A. Megerian, M.D., Alejandro Rivas Campo, M.D., Sarah Mowry, M.D., Maroun Semaan, M.D., Brian D. D’Anza, M.D. |
| 12:00 noon | Lunch |
| | |
| 12:30 – 5:00 p.m. | Laboratory Session - Surgical Training and Research Lab, Biomedical Research Building, BRB B68 12:30 – 3:00 p.m.: Retrosigmoid Translabyrinthine/Transpetrosal 3:00 – 5:00 p.m.: Far Lateral Approach and its Variations |
| 5:00 p.m. | Course adjourns and departures |

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. We hope you enjoy this educational opportunity provided by University Hospitals Cleveland Medical Center.

Acceptance of funding in support of this symposium does not constitute endorsement of any product or manufacturer.

The commitment to exceptional patient care begins with revolutionary discovery. University Hospitals Cleveland 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 University Hospitals Cleveland Medical Center are advancing medical care through innovative research and discovery that bring the latest treatment options to patients.

Resident & Fellow Educational Grant Policy and Procedure

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

Fifth & Sixth Year Neurosurgery Residents who are interested in the surgical management of pathologies involving the craniocervical junction may complete the on-line application form on the CNS website to request an educational grant to attend this course.

The educational grant will cover the following for 18 neurosurgery residents:

- Tuition
- Lodging for 2 nights, room & tax only. Two residents/fellows assigned per room. If attendees prefer a private room due to COVID-19, there will be a charge for the cost of one room night (\$167.00 plus tax). A credit card must be provided upon registration.
- Roundtrip airfare (nonrefundable coach) or if driving, reimbursement for mileage and parking. UHCMC is unable to pay for international travel.
- 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 between the Cleveland airport and hotel.
- Food & beverage expenses (outside the course agenda).