

CONTINUING MEDICAL EDUCATION

Traveling CME Neurosciences 2020-21

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HOSPITALS**

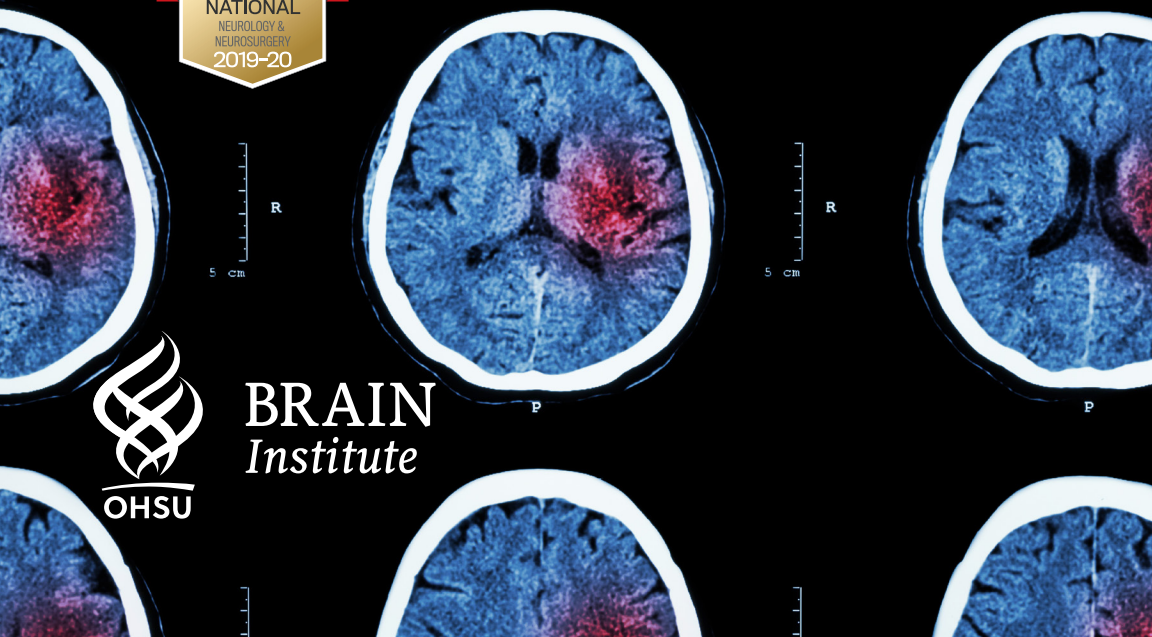
USNews

NATIONAL
NEUROLOGY &
NEUROSURGERY
2019-20



OHSU

BRAIN
Institute



Traveling CME / Neurosciences 2019-20


DATE	Upon request
LOCATION	Your practice, hospital, or virtual
WHO	Internists, family physicians, neurologists, neurosurgeons, neuroradiologists, naturopathic doctors, nurse practitioners, physician assistants, physical and occupational therapists and registered nurses
CREDIT	OHSU School of Medicine, Division of CME, designates this live activity for a maximum of 1.0 AMA PRA Category 1 Credit.™ Physicians should claim only the credit commensurate with the extent of their participation in the activity.
ACCREDITATION	Oregon Health & Science University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.
	<p>For more information or to schedule a traveling or virtual session, please contact OHSU Provider Relations.</p> <p>Dina Girgenti-Iida Provider relations manager 503-494-6535 girgenti@ohsu.edu</p>

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Jeff Kraakevik, M.D.

Associate professor, neurology
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Professor, endocrinology and neurological surgery;
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Steve Goins, M.D.

Clinical associate, neurology
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Mathew Geltzeiler, M.D.

Assistant professor, Oregon Sinus Center; assistant professor, otolaryngology
(Head and neck)

Sachin Gupta, M.D., F.A.C.S

Assistant professor, otolaryngology head & neck,
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Seunggu Jude Han, M.D.

Assistant professor, neurological surgery
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Amie Hiller, M.D.

Assistant professor, neurology
(Parkinson's and movement disorders)

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Assistant professor, neurological surgery
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Professor, neurology
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Joseph Quinn, M.D.

Professor, neurology; director, OHSU Parkinson Center
(Parkinson's and movement disorders, aging and Alzheimer's)

Ahmed Raslan, M.D.

Associate professor, neurological surgery
(Pain and epilepsy surgery, neurological surgery)

Scott Rewinkel, M.D., M.S.

Clinical associate, neurology
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Colin Roberts, M.D.

Associate professor, neurology, Doernbecher Children's Hospital
(Pediatric neurology, epilepsy)

Delaram Safarpour, M.D.

Assistant professor, neurology
(Parkinson's and movement disorders)

Christina Sayama, M.D., M.P.H.

Assistant professor, neurological surgery
(Pediatric neurological surgery, neuro-oncology, spinal surgery)

Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Campagna Professor and chair, neurological surgery
(Pediatric neurological surgery, epilepsy and craniofacial surgery)

Lynne Shinto, N.D., M.P.H.

Associate professor, neurology
(Naturopathic medicine, neurology and women's health)

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Associate professor, neurology
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OHSU NW Pituitary Center
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Amy Visser, M.D.

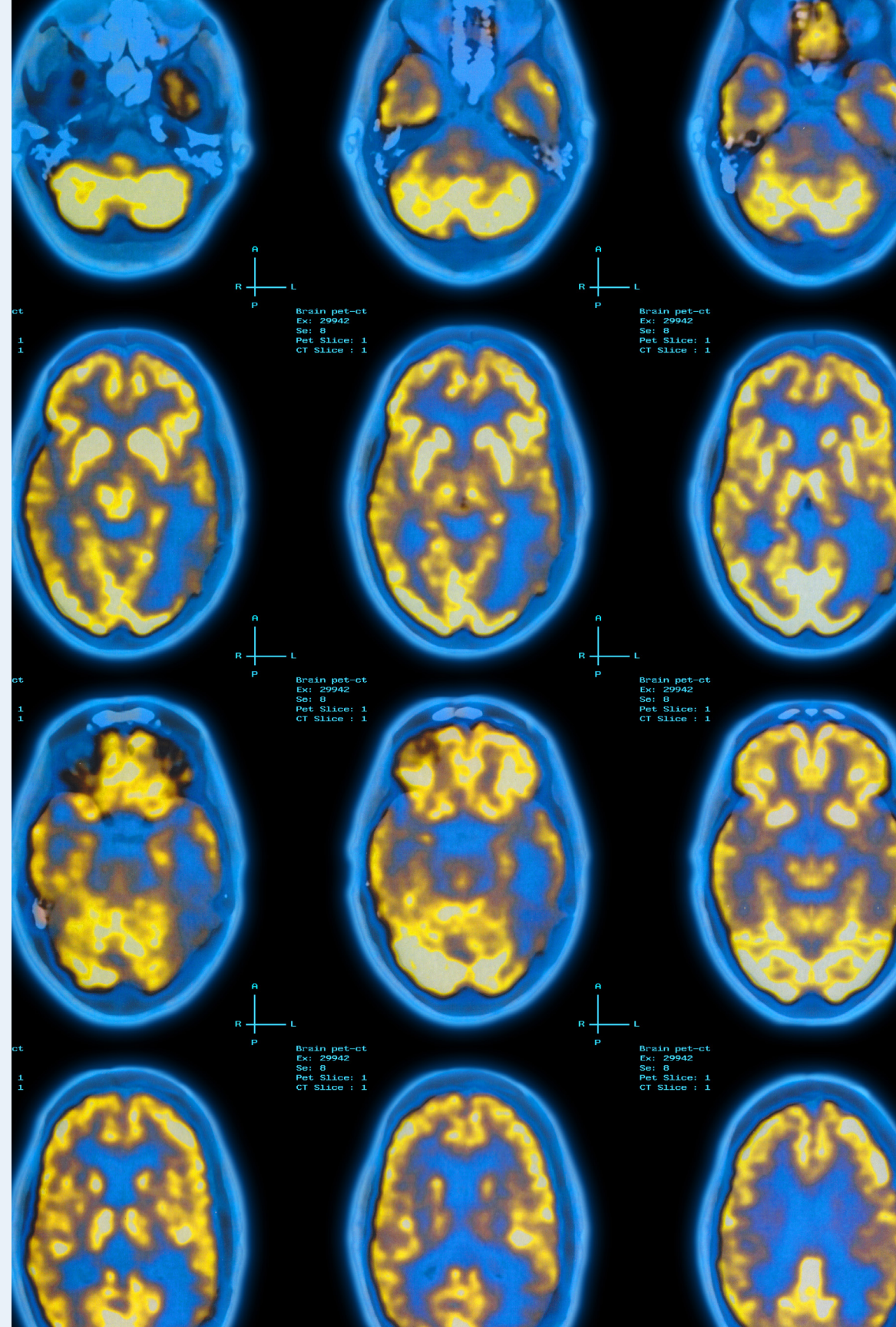
Assistant professor, neurology
(Neuromuscular, peripheral nerve disorders, ALS/MDA)

David Yam, M.D.

Associate professor, spine, neurological surgery, OHSU Tuality Healthcare
(Minimally invasive spine surgery)

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Assistant professor, neurological surgery; family nurse practitioner,
OHSU NW Pituitary Center
(Neuroendocrinology, pituitary and adrenal disorders)



Session selection

Aging, Alzheimer's and dementia

Dementia: Overview and Management

Jeffrey Kaye, M.D.; Joseph Quinn, M.D.; Lisa Silbert, M.D., M.C.R.

Learning objectives

- Conduct basic diagnostic evaluation of cognitive disorders.
- Identify appropriate candidates for specialty referral.
- Review medical options for managing cognitive decline and common behavioral problems in dementia.
- Identify resources for providing ancillary services (e.g., education, support groups, driving evaluations) for dementia.

Cerebrovascular

Subarachnoid Hemorrhage and Cerebral Vasospasm

Justin Cetas, M.D., Ph.D.

Learning objectives

- Define the terms delayed ischemic neurological deficits or DIND, and cerebral vasospasm in the setting of subarachnoid hemorrhage.
- Describe the time course and associated signs of DIND.
- Describe the current medical therapies for the prevention of DIND.
- Describe the interventional therapies available for the treatment of cerebral vasospasm and DIND.

The Unruptured Cerebral Aneurysm

Gary Nesbit, M.D.

Learning objectives

- Explain the imaging and risk analysis of an unruptured aneurysm.
- Discuss the management options and outcomes data of surgical and interventional therapy, and the decision-making strategy of a multidisciplinary team.

Carotid Stenosis and the Prevention of Stroke

Gary Nesbit, M.D.

Learning objectives

- Explain the variety of noninvasive methods of evaluation and risk analysis of symptomatic and asymptomatic carotid stenosis.
- Discuss the management options and outcomes of data medical therapy, endarterectomy and angioplasty and stenting.

Painful Vertebral Compression Fractures

Gary Nesbit, M.D.

Learning objectives

- Explain the clinical and imaging methods of evaluation of vertebral compression fractures to determine their relationship to severe back pain.
- Discuss the management options and outcomes data of medical therapy, kyphoplasty and vertebroplasty in osteoporotic and pathologic compression fractures.

Cerebral and Spinal AV Fistula: Understanding a Complex Disease

Gary Nesbit, M.D.

Learning objectives

- Explain the variety of arteriovenous fistulas of the brain and spine, and their confusing clinical presentation.
- Discuss imaging strategies, treatment paradigms and outcome expectations.

Subarachnoid Hemorrhages: Treatment for Aneurysms

Justin Cetas, M.D., Ph.D.; Aclan Dogan, M.D.

Learning objectives

- Explain the components of a dual-trained endovascular neurosurgeon's practice.
- Examine how dual-trained neurosurgeons use their open and endovascular skill sets to evaluate and treat CV disease.
- Recognize the special features of aneurysms at specific sites.
- Recognize potential pitfalls for safe lesion treatment.
- Identify new methods of intervention for cerebral aneurysms.
- Assess treatment failures in intracranial aneurysms, treated with either modality.
- Assemble strategies for treatment and salvage of recurrent and difficult intracranial aneurysms.

Cerebral Aneurysms

Justin Cetas, M.D., Ph.D.; Aclan Dogan, M.D.

Learning objectives

- Analyze individual patients and develop more informed treatment recommendations.
- Evaluate latest advances and available outcomes data to determine their significance for ruptured and unruptured intracranial aneurysms.
- Assess treatment failures in intracranial aneurysms treated with either modality.
- Assemble strategies for treatment and salvage of recurrent and difficult intracranial aneurysms.

Acute Stroke Treatment

Hormozd Bozorgchami, M.D.; Wayne Clark, M.D.; Helmi Lutsep, M.D.

Learning objectives

- Describe current selection of patients for intravenous rtPA treatment.
- Review the results of major intra-arterial mechanical embolectomy device trials in acute stroke.
- Discuss potential future approaches to acute stroke care, including imaging selection.

Stroke Prevention

Hormozd Bozorgchami, M.D.; Wayne Clark, M.D.; Helmi Lutsep, M.D.

Learning objectives

- Review current stroke prevention strategies in intracranial and extracranial large vessel disease.
- Describe recent changes in the management of atrial fibrillation.
- Review possible new mechanisms of cardioembolic and cryptogenic stroke.

Concussion

NEW Neuropsychological Factors that Influence Concussion Management and Recovery

Tyler Duffield, Ph.D.

Learning objectives

- Explain what is a concussion, explain premorbid factors related to mental health outcomes following concussion.
- Explain whether current concussion/mTBI management strategies worsen outcomes.
- Describe the OHSU Sports Medicine Concussion Clinic Model.

Ear, nose and throat

NEW Rhinorrhea and Cerebrospinal Fluid Leaks... when it is not just a runny nose?

Mathew Geltzeiler, M.D.

Learning objectives

- Explain the signs and symptoms associated with CSF leak.
- Identify when rhinorrhea is concerning for a CSF leak.
- Discuss radiographic evaluation.
- Review medical and surgical management of anterior CSF leaks.

NEW Endoscopic Approaches to the Anterior Cranial Base

Mathew Geltzeiler, M.D.

Learning objectives

- Describe the principles and challenges of the endoscopic endonasal approach to the anterior skull base.
- Provide an overview of the various endoscopic approaches available to the skull base.
- Explain when an endoscopic approach may be appropriate for a given patient.

NEW Evaluation and Management of Sinonasal Malignancy

Mathew Geltzeiler, M.D.

Learning objectives

- Describe the evaluation of a sinonasal mass.
- Review the most common sinonasal cancers.
- Provide an overview of the treatment strategies for these tumor types.
- Explain the principles and challenges associated with endoscopic approaches to these tumors.

NEW Anterior Skull Base Reconstruction: Strategies for a Successful Closure

Mathew Geltzeiler, M.D.

Learning objectives

- Discuss the challenges associated with intraoperative CSF leak.
- Review common skull base defects and provide a framework for understanding reconstructive options.

NEW Endoscopic Transsphenoidal Surgery 101: The Surgical Approach to the Sella and Reconstructive Options

Mathew Geltzeiler, M.D.

Learning objectives

- Describe the anatomy encountered during a routine, endoscopic pituitary surgery.
- Review the endoscopic approach to the sella.
- Discuss the reconstructive options after pituitary surgery.
- Review postoperative care for pituitary patients.

NEW Temporal Bone Cerebrospinal Fluid Leaks

Sachin Gupta, M.D.

Learning objectives

- Identify initial presenting symptoms of CSF leaks that present in the temporal bone.
- Discuss radiographic evaluation.
- Review medical and surgical management.

NEW Advances in the Management of Acoustic Neuromas

Sachin Gupta, M.D.

Learning objectives

- Review the initial diagnosis and workup.
- Review the indications for observation, surgery or radiosurgery.
- Discuss the benefit of facial nerve diffusion tractography for facial nerve localization.
- Discuss the role of cochlear implantation for hearing loss from acoustic neuromas.

NEW Updates in Management of Facial Paralysis

Myriam Loyo Li, M.D.

Learning objectives

- Review evidence-based diagnosis, treatment, and prognosis for patients with Bell's palsy.
- Discuss the differential diagnosis for facial paralysis.
- Describe the range of new treatment options for facial paralysis including rehabilitation, neuromodulation (botox) and surgery.

NEW Facial Paralysis

John NG, M.D.

Learning objectives

- Evaluate periocular deficits of patients with facial nerve palsy and determine risks to eye health.
- Explain acute non-surgical management of patients with facial palsy with periocular involvement.
- Discuss surgical rehabilitation of periocular deficits in patients with facial palsy.

Epilepsy

Surgery for Epilepsy

Kim Burchiel, M.D., F.A.C.S.; Ahmed Raslan, M.D.

Learning objectives

- Explain the role of surgery in the management of medically intractable seizures.
- Describe the common types of epilepsy surgery.

Seizure Types and Epilepsy Syndromes

Lia deLeon Ernst, M.D.; Marissa Kellogg, M.D., M.P.H.; Matthew McCaskill, D.O.;

Paul Motika, M.D.; David Spencer, M.D.

Learning objectives

- Differentiate between and recognize different types of seizures and epilepsy syndromes (as well as seizure mimics).
- Apply basic principles of epilepsy management including use of anti-seizure medications, additional treatment options, and knowing when to refer to a specialist.
- Appropriately counsel patients with epilepsy on common topics such as prognosis, seizure precautions and pregnancy.

Surgical Treatment of Epilepsy for Neurologists

Lia deLeon Ernst, M.D.; Marissa Kellogg, M.D., M.P.H.; Matthew McCaskill, D.O.;

Paul Motika, M.D.; David Spencer, M.D.

Learning objectives

- Recognize medically refractory epilepsy early and identify patients who should be referred for surgical management of epilepsy.
- Describe the range of surgical options for treatment of epilepsy including the risks and benefits.
- Explain the risks of surgery in comparison with risks of ineffective ongoing medical therapy.
- Explain barriers to effective surgical treatment of epilepsy.

Medication Management for Epilepsy

Lia deLeon Ernst, M.D.; Marissa Kellogg, M.D., M.P.H.; Matthew McCaskill, D.O.;

Paul Motika, M.D.; David Spencer, M.D.

Learning objectives

- Review currently available anti-epileptic medications.
- Discuss the importance of defining the seizure syndrome when choosing a medication.
- Describe medication selection.
- Discuss the importance of considering side-effect profiles.

General wellness

NEW Cannabis and Cannabinoids

Michelle Cameron, M.D.

Learning objectives

- Explain the differences between cannabis and cannabinoids.
- Discuss with the potential risks and benefits of cannabis and cannabinoids.

Wellness and Neurological Diseases

Lynne Shinto, N.D., M.P.H.

Learning objectives

- Review diet, physical activity and stress reduction.
- Discuss commonly used dietary supplements (e.g., omega-3 fatty acids, vitamins and minerals).

Headaches

Headaches

Juliette Preston, M.D.

Learning objectives

- Describe the most common headache syndromes.
- Explain current treatment options.
- Identify cases where imaging and/or specialist referral is warranted.

Multiple sclerosis

NEW Falls and Imbalance in Multiple Sclerosis

Michelle Cameron, M.D.

Learning objectives

- Explain the epidemiology of falls and imbalance in MS.
- Discuss risk factors for falls in people with MS.
- Explain evidence-based options for fall prevention in people with MS.

Updates in Multiple Sclerosis Diagnosis and Management

Michael Lane, M.D.

Learning objectives

- Describe updates to MS diagnostic criteria.
- Describe currently available disease-modifying therapies.
- Explain emerging MS therapies based on mechanism of action, efficacy, safety, administration and tolerability.

Nerve

Peripheral Nerve

Kim Burchiel, M.D., F.A.C.S.

Learning objectives

- List common peripheral nerve entrapment syndromes and their surgical management.
- Describe the principle of nerve transfer and describe the role of surgery in nerve tumors.

Neurocritical care

NEW Neurohospitalist's Pearls

Michael Lane, M.D.; Steven Goins, M.D.; Scott Rewinkel, M.D.; Matthew McCaskill, D.O.

Learning objectives

- Vertigo: Learn how to make a reliable 10-minute assessment of vertigo without MRI.
- Approach to the patient with seizure in the ED: Describe the initial workup for patients with new onset seizures, explain the management of status epilepticus.
- Acute headache management in the ED: Recognize when and how to assess for secondary causes of headaches, describe acute management strategies for headache.
- Evaluating and managing acute stroke: Describe the basic steps in evaluating a patient for acute stroke, describe the major inclusion and exclusion criteria for acute stroke treatment.

Update on Neurocritical Care

Julia Durrant, M.D.

Learning objectives

- Explain up-to-date evidence-based guidelines for management in neurocritical care.
- Explain novel and ongoing research in acute brain injury including ischemic and hemorrhagic injury, global ischemia and traumatic brain injury.

Neurological trauma

Traumatic Brain Injury

Justin Cetas, M.D., Ph.D.; Ahmed Raslan, M.D.

Learning objectives

- Discuss radiographic predictors of outcomes.
- Explain the radiographic concerns for intracranial pressure elevation.
- Explain the evidence-based fundamentals of the acute management of moderate to severe brain injuries.

Neuro-oncology / skull base

Advances in the Management of High-Grade Glioma

Prakash Ambady, M.D.; Seunggu Jude Han, M.D.

Learning objectives

- Discuss the updates in the classification of high-grade gliomas with emphasis on the importance of molecular classification.
- Review the standard of care and emerging therapies for treatment of high-grade gliomas.

Advances in the Management of Low-Grade Glioma

Seunggu Jude Han, M.D.

Learning objectives

- Review the latest evidence in natural history, the benefit of aggressive surgical resection, the role of mapping and the role of molecular classification.
- Discuss the evidence for adjuvant therapy in management of low-grade gliomas.

Novel Multi-Modality Treatment of Brain Tumors: Role of Clinical Trials

Seunggu Jude Han, M.D.

Learning objectives

- Review the latest advances in each step along the disease course for patients with brain tumors, from diagnosis to salvage therapy.
- Discuss the importance of clinical trials in care of the brain tumor patient.

Role of Novel Imaging Biomarkers in Management of Brain Tumors

Prakash Ambady, M.D.

Learning objectives

- Review the role of various imaging modalities for diagnosis, follow-up and response assessment in brain tumors.
- Discuss high-resolution steady-state MRI with ferumoxytol and its role in the management of brain tumors.

Immunotherapy for Brain Tumors

Prakash Ambady, M.D.; Seunggu Jude Han, M.D.

Learning objectives

- Review the role of novel immunotherapy approaches in the management of brain tumors.

Minimally Invasive Approaches to Brain Tumors

Jeremy Ciporen, M.D.

Learning objectives

- Discuss initial diagnosis and workup.
- Identify the sometimes subtle clinical presentations patients may have with a serious neurosurgical problem.
- Review the treatment options and outcomes these patients can expect.
- Explain resources to better care for patients.

Treatment Options and Approaches to Primary Brain Tumors, Metastatic Disease and Infections

Jeremy Ciporen, M.D.; Aclan Dogan, M.D.; Seunggu Jude Han, M.D.

Learning objectives

- Discuss initial diagnosis and workup.
- Identify the sometimes subtle clinical presentations patients may have with a serious neurosurgical problem.
- Review the treatment options and outcomes these patients can expect.
- Summarize and answer questions.
- Provide resources to better care for patients.

Acoustic Neuromas

Aclan Dogan, M.D.

Learning objectives

- Identify the indications for operative treatment, radiation treatment, drug treatment and observation.
- Apply technical details of acoustic tumor surgery.
- Discuss how to avoid complications and study the outcome of surgery, radiation treatment and observation.

Neurosurgery Update: What to Expect for Brain Tumor Surgery

Jeremy Ciporen, M.D.; Seunggu Jude Han, M.D.

Learning objectives

- Discuss initial diagnosis and workup.
- Identify the sometimes subtle clinical presentations patients may have with a serious neurosurgical problem.
- Review treatment options and outcomes.
- Explain resources to better care for patients.

NEW The RADIANS Clinic: A Multi-Disciplinary Radiation Oncology-Neurosurgery Clinic Brought to the Community

Jeremy Ciporen, M.D.

Learning objectives

- Explain the RADIANS Clinic.
- Describe the improved access to multi-disciplinary care for neuro-oncology patients and its impact.

Latest Advances in Surgical Management of Brain Tumors

Seunggu Jude Han, M.D.

Learning objectives

- Review the latest technological advances being utilized during resection of brain tumors that are designed to improve outcomes, minimize morbidity and enhance safety of the procedures. (Techniques include intraoperative MRI, fluorescence-guided resection, stimulation brain mapping and others.)

Transorbital Approaches

Jeremy Ciporen, M.D.

Learning objectives

- Discuss the differential of orbital lesions.
- Explain minimally invasive approaches for optic nerve decompression.
- Discuss cases in which transorbital approach may be used instead of craniotomy.
- Explain transorbital approaches for skull base lesions.
- Discuss multiportal approaches to the skull base.

Pain

Medical Acupuncture for the Treatment of Pain: Applications and Mechanism of Action

Alexandra Dimitrova, M.D., M.A.

Learning objectives

- Discuss various evidence-based applications of acupuncture for the treatment of headache and pain, as well as its mechanism of action at the level of the peripheral and central nervous system.

Surgical Management of Cancer Pain

Ahmed Raslan, M.D.

Learning objectives

- Review the anatomy and prevalence of cancer pain and the guidelines for treatment of cancer pain.
- Surgical indications for ablative neurosurgery for cancer pain.
- Review the candidacy and the available ablative neurosurgical options for cancer pain.
- Analyze the existing data to support ablative neurosurgery for cancer pain.

Neuromodulation and Chronic Pain: Can Neurosurgeons Help?

Ahmed Raslan, M.D.

Learning objectives

- Explain the history of neurosurgery and pain.
- Review the anatomy and physiology of pain perception and the physiology of neuromodulation of pain.
- Describe the two main neurosurgical approaches to pain treatment (modulation and ablation).
- Review indications and candidacy for neurosurgical management.

Facial Pain

Kim Burchiel, M.D., F.A.C.S.

Learning objectives

- Describe how facial pain is classified.
- Describe the role of advance imaging in facial pain.
- Describe the major surgical approaches to facial pain.

Parkinson's and movement disorders

NEW An Overview of Atypical Parkinsonism

Lauren Talman, M.D.

Learning objectives

- Review the red-flag features which distinguish atypical parkinsonism from idiopathic Parkinson's disease.
- Discuss available diagnostic tools and outline management.

NEW Diagnosis and Management of Huntington's Disease

Lauren Talman, M.D.

Learning objectives

- Outline the clinical features of Huntington's Disease, approach to genetic testing, and available treatments.

NEW Movement Disorders Due to Systemic Disease

Lauren Talman, M.D.

Learning objectives

- Provide an overview of the systemic diseases which can manifest with abnormal movement and discuss the approach to diagnosis.

Deep Brain Stimulation Surgery

Kim Burchiel, M.D., F.A.C.S.; Ahmed Raslan, M.D.

Learning objectives

- Describe the history of movement disorders surgery.
- Explain the difference between destructive surgery and DBS.
- Describe DBS, indications and patient candidate selection.
- Explain initial programming of DBS and follow-up programming visits.
- Describe DBS surgery — the nuts and bolts and benefits of asleep DBS.

Clinical Assessment of Falls

Jeff Kraakevik, M.D.; Lauren Talman, M.D.

Learning objectives

- Identify common causes of falls in neurologic diseases.
- Describe necessary components of the history and physical examination in a person with balance complaints.
- Clinically differentiate classic gait patterns on examination.
- Appropriately outline a tailored treatment plan for future fall prevention.

Comprehensive Care for Parkinson's Disease

Matthew Brodsky, M.D.; Kathryn Chung, M.D.; Amie Hiller, M.D.; Jeff Kraakevik, M.D.; Ronald Pfeiffer, M.D.; Joseph Quinn, M.D.; Delaram Safarpour, M.D.; Lauren Talman, M.D.

Learning objectives

- Identify diagnostic criteria for Parkinson's disease.
- Identify appropriate medical therapy options at different stages of disease.
- Describe recent developments and indications for surgical therapy.
- Discuss team approach for rehab therapy.

Diagnosis and Management of Tremor

Matthew Brodsky, M.D.; Kathryn Chung, M.D.; Amie Hiller, M.D.; Jeff Kraakevik, M.D.; Ronald Pfeiffer, M.D.; Joseph Quinn, M.D.; Delaram Safarpour, M.D.; Lauren Talman, M.D.

Learning objectives

- Clinically diagnose common types of tremor.
- Initiate management of common types of tremor.
- Select appropriate cases of tremor for referral to neurology.

Pediatrics

Hydrocephalus, Shunts and Neuroendoscopy

Christina Sayama, M.D.

Learning objectives

- Explain the causes and pathophysiology of hydrocephalus.
- Differentiate hydrocephalus from familial macrocephaly.
- Describe the latest endoscopic treatments available.

Lumps and Bumps on the Pediatric Head

Nathan Selden, M.D.

Learning objectives

- Recognize incidental and symptomatic lumps and bumps on the head: when to worry, when to watch and when to refer.

Craniofacial Surgery for Synostosis in Children

Leo Urbinelli, M.D.; Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Learning objectives

- Differentiate synostosis and positional head deformity.
- Determine optimal age of referral and prepare parents for consultation.
- Learn about the latest surgical options and technology.

Brain Tumors

Christina Sayama, M.D., M.P.H.; Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Learning objectives

- Identify common brain tumors in children.
- Identify the common signs and symptoms of children presenting with brain tumors.
- Describe the latest standards and outcomes in pediatric brain tumor therapy.

iMRI and Advances in Pediatric Neurosurgery

Christina Sayama, M.D., M.P.H.; Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Learning objectives

- Learn how intraoperative MRI improves outcomes for pediatric brain surgery.
- Identify indications for neurosurgical referral in children.
- Explain uses of modern imaging and computer navigation.
- Learn how best to counsel children and parents about expectations.

Epilepsy in Children

Colin Roberts, M.D.; Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Learning objectives

- Identify common presentations of epilepsy in children and their medical therapy.
- Describe features of medically refractory epilepsy in children.
- Review types of and outcomes from surgical therapy for pediatric refractory epilepsy.

Tethered Spinal Cord and Chiari Malformation

Christina Sayama, M.D., M.P.H.;

Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Learning objectives

- Identify common clinical presentations of tethered cord and Chiari I malformation.
- Identify common skin and skeletal markers of dysraphism.
- Explain indications for imaging and neurosurgical referral.

Traumatic Brain Injury in Pediatrics

Christina Sayama, M.D., M.P.H.;

Nathan Selden, M.D., Ph.D., F.A.C.S., F.A.A.P.

Learning objectives

- Identify the causes and manifestations of traumatic brain injury in children.
- Learn the latest recommendations for TBI management.
- Discuss the prognosis after various degrees of TBI.

Pituitary / neuroendocrinology

NEW Pituitary Disease and Bone Health

Maria Fleseriu, M.D., F.A.C.E.; Elena Varlamov, M.D.

Learning objectives

- Review endocrine causes of osteoporosis, discuss when to suspect pituitary disease as a cause of osteoporosis.
- Review clinicopathologic aspects of bone disease in hyperfunctioning pituitary disorders (acromegaly, Cushing's disease, prolactinoma) and hypofunctioning pituitary disorders (growth hormone deficiency, hypogonadism, adrenal insufficiency, hypothyroidism).
- Discuss management and prevention of osteoporosis in patients with pituitary disease.

David and Goliath: Approaches to Pituitary Tumors

Justin Cetas, M.D., Ph.D.; Jeremy Ciporen, M.D.

Learning objectives

- Discuss the challenging disease processes we face as physicians.
- Explain the cutting-edge techniques in neurosurgery utilized to safely manage complex problems.
- Describe open and minimally invasive neurosurgical techniques that preserve and improve neurological outcome.

Pituitary Dysfunction After Mild and Severe Traumatic Brain Injury

Elena Varlamov, M.D.

Learning objectives

- Explain the prevalence of hypopituitarism after traumatic brain injury.
- Review who, when and how to screen for hypopituitarism in patients with TBI.
- Describe treatment and outcomes for patients with pituitary deficiencies after TBI.

Pituitary Tumors and Dysfunction

Maria Fleseriu, M.D., F.A.C.E.; Elena Varlamov, M.D.; Chris Yedinak, M.N., F.N.P., D.N.P.

Learning objectives

- Explain pituitary incidentaloma.
- Radiographically identify the subtleties of sellar and parasellar masses.
- Diagnose pituitary dysfunction in patients with sellar and parasellar masses.
- Assess the long-term risks of dopamine agonist therapy for prolactinomas and when to withdraw therapy.

Cushing's Syndrome

Maria Fleseriu, M.D., F.A.C.E.; Elena Varlamov, M.D.; Chris Yedinak, M.N., F.N.P., D.N.P.

Learning objectives

- Review pathophysiology, morbidity and mortality associated with excess cortisol exposure.
- Learn updated recommendations for the screening and diagnosis of patients who potentially have Cushing's syndrome.

Acromegaly

Maria Fleseriu, M.D., F.A.C.E.; Elena Varlamov, M.D.; Chris Yedinak, M.N., F.N.P., D.N.P.

Learning objectives

- Review pathophysiology, morbidity and mortality associated with excess growth hormone exposure.
- Summarize the current criteria for cure in patients with acromegaly, including associated considerations on the interpretation of relevant assays, biochemical measures and clinical outcomes.

Chronic Management and Transition of Care for Pituitary Dysfunction

Chris Yedinak, M.N., F.N.P., D.N.P.

Learning objectives

- Outline the process and clinical support for care transition back to referring and local providers.

Sleep

NEW Sleep Quality Relevance to Cognitive, Emotional, and Physical Health

Tyler Duffield, Ph.D.

Learning objectives

- Explain the basic functions of sleep, describe contemporary sleep disturbance contributors, explain injury/recovery risks of poor sleep quality.
- Describe behavioral interventions for sleep, explain outcomes from concussion treatment clinic related to behavioral sleep intervention.

"I Can't Sleep" Insomnia: A Review of Behavioral and Pharmacologic Therapies

Kimberly Hutchison, M.D.; Asha Singh, M.D.

Learning objectives

- Identify the prevalence and consequences of insomnia.
- Identify causes of insomnia.
- Describe components of cognitive behavior therapy for insomnia.
- Define sleep efficiency.
- Explain pharmacological treatment options for insomnia.

"I Snore, Now What?" What Is Sleep Apnea and How Do I Screen for It?

Kimberly Hutchison, M.D.; Asha Singh, M.D.

Learning objectives

- Explain the underlying causes of, risk factors for, and comorbid conditions associated with obstructive sleep apnea.
- Describe screening tools for OSA.
- Discuss treatment options for snoring and mild, moderate and severe OSA.
- Describe methods for supporting patient adherence to OSA treatment.

Spine – Adults

NEW Cervical and Lumbar Disc Replacement

David, Yam, M.D.

Learning objectives

- Review indications, innovations, challenges, and latest very favorable literature on disc arthroplasty options that now exist for patients instead of fusion.

NEW Innovations in Minimally Invasive Spinal Surgery

David, Yam, M.D.

Learning objectives

- Explain new options for lumbar fusion surgery for patients.
- Explain the literature surrounding minimally invasive surgery for the spine.
- Review the risk reduction potential for spinal surgery.
- Discuss the options to reduce adjacent segment disease with fusion.

NEW Minimally Invasive Spine Surgery for Lumbar Degenerative Patients

David, Yam, M.D.

Learning objectives

- Review the indications and advantages of minimally invasive spinal surgery for disc herniation, stenosis, lumbar spondylolisthesis, and lumbar degenerative disc disease.

NEW Minimally Invasive Spinal Deformity Surgery

David, Yam, M.D.

Learning objectives

- Define scoliosis and kyphosis and tools to identify and treat the pathology in a minimally invasive fashion.
- Discuss the literature and new methods of reducing risk and morbidity related to intervention.

Adult Spinal Deformity: Evaluation and Management in the Sagittal Plane

Josia Orina, M.D.

Learning objectives

- Explain spine alignment.
- Define normal and abnormal alignment.
- Review epidemiology and clinical impact of adult deformity.
- Discuss patient presentation and evaluation.
- Explain the role of surgery and techniques for deformity correction.

Spine – Pediatrics

Cerebral Palsy and Spasticity

Christina Sayama, M.D., M.P.H.

Learning objectives

- Describe cerebral palsy, spasticity and other movement disorders.
- Learn about baclofen pumps and other surgical treatment options for spasticity.

Pediatric Spine Problems

Christina Sayama, M.D., M.P.H.

Learning objectives

- Identify common spine problems in the pediatric patient: presentation and detection, when to obtain imaging, when to refer and treatment options.

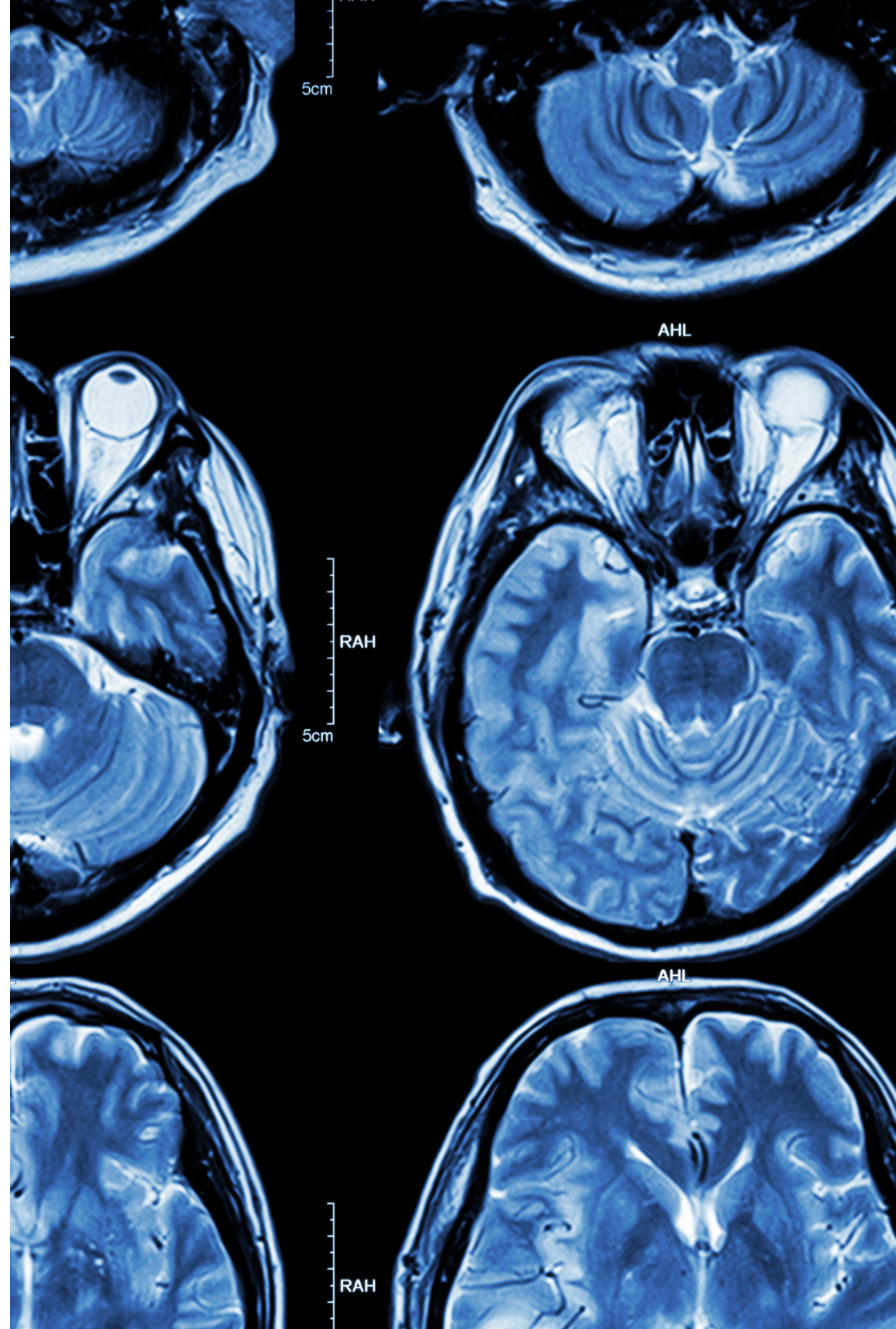
Pediatric Scoliosis and Other Complex Spine Issues

Christina Sayama, M.D., M.P.H.

Learning objectives

- Introduction and overview of more complex pediatric spine issues and how they can be detected, when to refer and treatment overview.

Other topics are possible depending on speaker availability: Please ask.





OHSU accepts most major health plans.
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