Controversies in Neurological Restoration: Clinical Strategies and Case Presentations

Friday, November 22, 2013
Seattle Science Foundation
Swedish Medical Center/Cherry Hill
550 17th Avenue, Suite 600
Seattle, Washington
Needs Statement
As advocates for their patients, clinicians have identified the need to know when it is appropriate to consider alternative neuromodulative therapies such as deep brain stimulation for movement disorders and pain. By educating physicians and other health-care professionals about the appropriate use of neuromodulative therapies, the quality of life will improve for this rapidly increasing patient population, their families and their caregivers, thereby enriching the physical, emotional and social well-being of our communities.

Controversies in Neurological Restoration: Clinical Strategies and Case Presentations will explore current techniques and indications for interacting with the nervous system to help patients with neurological diseases. This is a very exciting area with new indications emerging at a rapid pace, which gives rise to both technical and ethical challenges regarding what can or should be done to enhance neurological function.

Course Description
This symposium is designed to inform physicians and other health-care providers of the latest advances in neuromodulative therapy and its appropriate use for patients faced with chronic neurological disease for whom conventional therapies have not been effective. The debate-style format of this symposium will mirror the internal dialogue that physicians, clinicians and other allied health professionals likely experience when treating a population with complex disorders. Attendees will leave with a plethora of strategies for treating patients with epilepsy, Parkinson’s disease, essential tremor, depression, trigeminal neuralgia and back pain.

Intended Audience
This course is intended for neurologists, pain physicians, primary-care physicians and advanced care practitioners who care for patients with chronic neurological disorders in Washington, Oregon, Idaho, Montana and Alaska.

Planning Committee
Ryder P. Gwinn, M.D., Course Chair
Glen David, M.D.
David A. Hanscom, M.D.
Laura E. Jacob, MEd, CME Specialist
Peter C. Nora, M.D., FACS
Peggy O. Shortt, ARNP

Accreditation with Commendation
Swedish Medical Center is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

AMA PRA Category 1 Credits™
Swedish Medical Center designates this live activity for a maximum of 7.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Acknowledgments
This symposium is financially supported in part by educational grants in accordance with ACCME’s Standards for Commercial Support. At the time of this printing, a complete listing of commercial supporters was not available. Appropriate acknowledgment will be given to all supporters at the time of the symposium.

Location
The Seattle Science Foundation is located on the sixth floor of the James Tower at Swedish Medical Center/Cherry Hill. Swedish Medical Center/Cherry Hill is located at 500 17th Avenue in Seattle, Washington. Parking is available in the garage on 16th Avenue between Cherry and Jefferson at a maximum fee of $16.50. From I-5 (northbound and southbound), take the James Street exit. Travel east on James Street. James will become Cherry Street. Turn right (south) on 16th Avenue. Turn right into the main garage entrance.
Agenda

7:15 a.m.  Registration and Breakfast
7:45 a.m.  Welcome and Introduction to Neurological Restoration
           Ryder P. Gwinn, M.D.

Session I: Epilepsy
8 a.m.    Neuropace: Who, When, Where and Why?
           Michael J. Doherty, M.D.
8:20 a.m. Ablation/Surgery for Epilepsy
           Kim J. Burchiel, M.D., FACS
8:40 a.m. Epilepsy Monitoring Unit: Pre-Surgical Case
           Jehuda P. Sepkuty, M.D.
8:50 a.m. Break

Session II: Parkinson's Disease
9:05 a.m. “Asleep” Deep Brain Stimulation: Accuracy as Surgical Endpoint
           Francisco Ponce, M.D.
9:25 a.m. Tailoring Target Selection to the Patient
           Shannon Donovan, MPAS, PA-C
9:45 a.m. Gene Therapy for Parkinson’s Disease
           Jennifer L. Witt, M.D.
10:05 a.m. Case Presentation on Parkinson’s Disease
           Jennifer L. Witt, M.D.
10:15 a.m. Break

Session III: Essential Tremor
10:30 a.m. Surgical Treatment of Essential Tremor
           Jonathan D. Carlson, M.D., Ph.D.
10:50 a.m. Gamma Knife for Essential Tremor
           Ronald F. Young, M.D.
11:10 a.m. Focused Ultrasound for Essential Tremor
           Ryder P. Gwinn, M.D.
11:30 a.m. Case Presentation on Essential Tremor
           Susie I. Ro, M.D.
11:40 a.m. Lunch (provided)

Session IV: Depression
12:25 p.m. Deep Brain Stimulation for Major Depressive Disorder
           Kenneth N. Meilman, M.D.
12:45 p.m. Interventional Psychiatry: Neuromodulation for Depression and Anxiety
           Tuesday E. Burns, M.D.
1:05 p.m.  Case Presentation on Depression
           Peter Roy-Byrne, M.D.
1:15 p.m.  Break

Session V: Trigeminal Neuralgia
1:30 p.m.  MR-guided Focused Ultrasound for the Treatment of Pain
           Stephen Monteith, M.D.
1:50 p.m.  Gamma Knife for Trigeminal Neuralgia
           Ronald F. Young, M.D.
2:10 p.m.  Case Presentation on Trigeminal Neuralgia
           Glen David, M.D.
2:20 p.m.  Break

Session VI: Back Pain
2:35 p.m.  Neuromodulation for Back Pain
           Brett R. Stacey, M.D.
2:55 p.m.  Injections for Back Pain
           Tom Yang, M.D.
3:15 p.m.  Surgery for Back Pain
           David A. Hanscom, M.D.
3:35 p.m.  Case Presentation for Back Pain
           Glen David, M.D.

Keynote
3:45 p.m.  Project MindScope: Exploring the Brain in a High-Throughput Manner
           Christof Koch, Ph.D.

4:30 p.m.  Adjourn

For Further Information:
Phone: 206-386-2755
Fax: 206-320-7462
E-mail: CME@swedish.org
Web: www.swedish.org/cme
www.facebook.com/SwedishCME
Course Objectives

At the conclusion of this symposium, the participant will provide better patient care through an increased ability to:

- Review results from the Neuropace study and discuss case selection and programming
- Describe three types of surgical resection for temporal lobe epilepsy (TLE), explain selective microsurgical amygdalohippocampectomy and discuss resection of cortical dysplasia for epilepsy
- Discuss the complexity of pre-surgical evaluation in epilepsy patients, outline the steps in the evaluation of an intractable epilepsy patient and describe the importance of vascular endothelial growth factor (VEGF) in decision making for the surgeon
- Address the debate between anatomical and electrophysiological targeting, discuss the current place of Deep Brain Stimulation (DBS) in the management of Parkinson’s disease and describe the role of intraoperative imaging in functional neurosurgery
- Compare globus pallidus interus (GPI) and subthalamic nucleus (STN), discuss selecting a target and review programming when treating patients with Parkinson’s disease
- Explain the main rationales for using gene therapy for Parkinson’s disease, describe proposed mechanisms of action of gene therapy approaches and discuss data on safety and efficacy for gene therapy approaches
- Discuss a complex case of Parkinson’s disease and the approaches for treatment management
- Differentiate between the tremor of Parkinson’s disease and Essential Tremor, discuss the different brain targets to treat tremor and outline the surgical technique for DBS in the thalamus
- Review the history, patient selection, success rates and complications of Gamma Knife’s treatment of Trigeminal Neuralgia
- List indications for treatment of Essential Tremor with focused ultrasound (FUS), describe how FUS can be used to create a lesion in the brain and outline the results of the pilot study on FUS for Essential Tremor
- Describe a clinical case illustrating the factors involved in deciding if and when surgical intervention is indicated for essential tremor and decide how to choose the most appropriate type of intervention
- Discuss the current theory and research on DBS for treatment resistant depression and describe the brain circuits that underlie normal and abnormal mood states
- Describe the mechanisms of action of Electroconvulsive Therapy (ECT) and Transcranial Magnetic Stimulation (TMS), list the indications for interventions such as ECT and TMS in the neuropsychiatric population and review novel applications of ECT and TMS
- Debate options for managing a complex case of treatment resistant depression
- Explain the principles of MR-guided Focused Ultrasound (MRgFUS) therapy and discuss current diseases that can be effectively treated with MRgFUS
- Review the history of Gamma Knife’s treatment of Trigeminal Neuralgia, describe patient selection criteria for Gamma Knife treatment of Trigeminal Neuralgia and discuss success rates and complication rates for Gamma Knife treatment of Trigeminal Neuralgia
- Describe examples of signs and symptoms of Trigeminal Neuralgia, discuss treatment options and review examples of a specific workup involved in treatment
- Discuss the evidence supporting neuropathic back pain for spinal cord stimulation, review outcomes for neuromodulation for back pain and describe emerging technologies and techniques of neuromodulation for back pain
- Outline the different types of, and indications for, injections for back pain and discuss the latest recommendations for injection therapies
- Differentiate between a structural and non-structural spine problem, outline outcomes of surgery for structural problems and discuss lower back pain as a non-structural problem that is not helped with surgery
- Discuss treatment options for back pain and review examples of a specific workup involved in treatment
- Describe the neuroanatomy and neurophysiology of the mammalian cerebral cortex and discuss the single neurons in the human medial temporal lobe
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Faculty

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Registration Information:
Preregistration is required as space is limited. Participants who register by the “Advance Registration” deadline will receive a confirmation postcard after Monday, November 11, 2013. Registrations will only be processed when accompanied by full payment.

Cancellation:
To receive a refund, notice of cancellation must be received no later than Friday, Nov. 15, 2013.

If using the registration form, please mail or fax it to:
Continuing Medical Education
Swedish Medical Center
747 Broadway
Seattle, WA 98122
Fax: 206-320-7462

Please note: No registrations are accepted by phone or e-mail.
If you have special needs, please contact the CME office at 206-386-2755.

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