

15th Annual Multimodal Treatment of Spinal Tumors Hybrid Course Saturday, March 15, 2025

at the Seattle Science Foundation

AGENDA

- 7 a.m. Registration & Breakfast
- 7:30 a.m. Welcome and Course Introduction Jens R. Chapman, M.D., Rod Oskouian, M.D. & Ehud Mendel, M.D., M.B.A.

SESSION 1: METASTATIC TUMORS

Moderated by: Ehud Mendel, M.D., M.B.A.

7:35 a.m. Surgical & Non-Surgical Options for Patients with Spinal Metastases Ehud Mendel, M.D., M.B.A.

Objectives:

- Identify the thought process for surgical vs. nonsurgical options for patients with spinal metastases
- Outline surgical options for treatment of spinal metastases
- 7:50 a.m. <u>Live Demonstration Broadcast from BioSkills Lab No. 1</u> Posterior Cervical Screw Fixation

Amir Abdul-Jabbar, M.D.

Objectives:

- Illustrate the surgical technique
- Identify complications and mitigation strategies

8:30 a.m. Building a Spinal Radiosurgery Program & Radio surgical Management of Spinal Metastasis

Yi An, M.D.

- Define the role of the radiation oncologist in specialty care coordination for patients with spinal metastasis
- Describe the approach to determination of primary cancer in spinal metastasis patients
- Outline the concepts of targeted medical therapy of spinal metastasis

 Professor Dr. Bernhard Meyer Objectives: Comprehend the spectrum of complications Evaluate strategies for complication avoidance and management 9:10 a.m. Surgical Management of Spine Metastases with Carbon Fiber Implants Miki Katzir, M.D. Objectives: Describe the use of screw-rod systems and distractible cages in the treatment of primary and accordance and management 	ïe
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primary and secondary spine tumorsExplain the limitations of carbon fiber implants	e
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9:25 a.m. Survivorship Prediction in Metastatic Spine Disease: Translation to Clinical Practic Michael Galgano, M.D.	
Objectives:	
Demonstrate how survivorship predictions can guide treatment options	
Explain the key factors influencing survivorship in metastatic spine diseaseDiscuss advancements in predictive analytics	
9:40 a.m. Break & Exhibits (not for CME credit)	
9:55 a.m. <u>Live Demonstration Broadcast from BioSkills Lab No. 2</u>	
Cement Augmentation and Ablation for Spinal Tumors (Kyphoplasty vs.	
Vertebroplasty)	
Ehud Mendel, M.D., M.B.A.	
Objectives:	
 Compare and contrast when one should perform a vertebroplasty or a kyphoplasty Outline the different types of cement to be used in both a kyphoplasty and 	
vertebroplasty	

10:30 a.m. SINS (Spinal Instability Neoplastic Score) 2024

Wende Gibbs, M.D.

- Describe the diagnosis and triage process for SINS
- Outline how to communicate and report SINS
- Highlight important aspects of treatment planning based on SINS
- 10:45 a.m. Session 1 Q&A

SESSION 2: PRIMARY BONE TUMORS

Moderated by: Ehud Mendel, M.D., M.B.A.

11 a.m. Strategies for Primary Tumors: 'One Trick Pony' En Bloc vs. Rational Integration of Effective Radiation

Mark H. Bilsky, M.D.

Objectives:

- Summarize the rationale for urgent surgical decompression in patients with myelopathy or cauda equina syndrome in the setting of an unknown primary
- Describe the rationale for urgent surgery even for radio/chemosensitive tumors such as myeloma and lymphoma
- Outline the rationale for urgent surgery even for primary bone tumors

11:15 a.m. Primary Spinal Column Tumors

Ziya Gokaslan, M.D.

Objectives:

- Recognize the difference in management between metastatic and primary tumors of the spine
- Describe the role of en bloc resection in the management of primary bone tumors

11:30 a.m. Break & Pick Up Lunch (not for CME credit)

11:45 a.m. <u>Live Demonstration Broadcast from BioSkills Lab No. 3</u> Complex Spinal Tumor Reconstruction Using Quad Rod Constructs with

Carbon/Peek Screws and Parallel Connectors

Neel Patel, M.D.

Objectives:

- Demonstrate surgical techniques for spinal tumor resection and reconstruction
- Evaluate implant and grafting options for spinal stability post tumor resection

SESSION 3: OTHER TOPICS

Moderated by: Jens R. Chapman, M.D.

12:25 p.m. Minimally Invasive Spine Surgery in Patients with Spine Tumors Rod Oskouian, MD Objectives:

- Master the principles and techniques of minimally invasive spine surgery (MISS)
- Integrate multidisciplinary approaches for optimal patient care

12:40 p.m.	 Deformity Correction in the Set-Up of Spine Tumors Luis Kolb, M.D. Objectives: Identify common spinal deformities associated with tumor Outline treatment strategies for spinal tumors
12:55 p.m.	 Surgery for Intradural Spine Tumors Paul C. McCormick, M.D. Objectives: Outline surgical techniques for removal of spinal cord tumors Explain the steps in diagnosing spinal cord tumors Describe the surgical anatomy of the spinal cord
1:05 p.m.	Break & Exhibits (not for CME credit)
1:15 p.m.	 Live Demonstration Broadcast from BioSkills Lab No. 4 Laminectomy Techniques and Principles with Multi-Rod Constructs in Spinal Reconstruction Jens Chapman, M.D. Objectives: Describe techniques to effectively decompress posterior thoracolumbar spine Outline the indications for mutli-rod constructs Describe strategies to effectively create multi-rod constructs
1:55 p.m.	 Role of PMMA in Oncologic Vertebral Body Reconstruction Neel Patel, M.D. Objectives: Explain the mechanisms and benefits Asses clinical application and outcomes
2:10 p.m.	Session 3 Q&A
2:30 p.m.	Break & Exhibits (not for CME credit)

2:45 p.m. <u>Live Demonstration Broadcast from BioSkills Lab No. 5</u> Percutaneous Spinal Fixation with Fenestrated Screws with Cement

Anu Amin, M.D.

- Summarize how to increase pull-out strength of screw with cement
- Outline potential complications of hardware failure
- Discuss increasing fixation options for tumor reconstruction

3:25 p.m. Interactive Roundtable Case Presentations

All Faculty

Moderators: Anu Amin, M.D., Amir Abdul-Jabbar, M.D., Rod Oskouian, M.D., Jens R. Chapman, M.D., & Ehud Mendel, M.D., M.B.A.

Objectives:

- Describe the multi-disciplinary therapy concept for spinal tumors and metastases
- Outline the diametric impact of implant material (Carbon/PEEK vs. Titanium)
- Explain how material choice impacts radiotherapy options and treatment safety
- **3:55 p.m.** Break & Exhibits (not for cme credit)

4:25 p.m. Leveraging Carbon Fiber Implants in Spinal Oncology (not for cme credit)

Christopher Alvarez-Breckenridge, M.D., Ph.D.

- Describe the role of carbon fiber implants in Spinal Oncology
- Identify clinical applications and outcomes of carbon fiber implants in Spinal Tumor Management
- 4:45 p.m. Course Wrap Up
- 4:55 p.m. Adjourn

DISTINGUISHED FACULTY

Jens R. Chapman, M.D. Course Co-Chair

Complex Spine Surgeon Swedish Neuroscience Institute Seattle, Washington

Ehud Mendel, M.D., MBA, FACS Course Co-Chair

Nixdorff-German Professor of Neurosurgery Executive Vice-Chair & Professor, Neurosurgery Director of Spine & Spine Oncology Program Yale School of Medicine & Simlow Cancer Hospital New Haven, Connecticut

Rod J. Oskouian, Jr., M.D. Course Co-Chair

Chief of Spine Director, Spine Fellowship Program Swedish Neuroscience Institute Seattle, Washington

Amir Abdul-Jabbar, M.D.

Orthopaedic Spine Surgeon Swedish Neuroscience Institute Seattle, Washington

Yi An, M.D.

Assistant Professor, Radiation Oncology Chief, Spine & Genitourinary Radiotherapy Program Yale School of Medicine New Haven, Connecticut

Mark H. Bilsky, M.D.

William E. Snee Endowed Chair Vice Chairman of Clinical Affairs, Neurosurgery Memorial Sloan Kettering Cancer Center New York, New York

Wende Gibbs, M.D.

Director of Spine Imaging & Intervention, Neuroradiologist Barrow Neurological Institute Phoenix, Arizona

Anu Amin, M.D.

Assistant Professor of Neurological Surgery University of Washington Seattle, Washington

Christopher Alvarez-Breckenridge, M.D., Ph.D.

Associate Professor, Department of Neurosurgery MD Anderson Cancer Center Houston, Texas

Michael Galgano, M.D.

Associate Professor of Neurosurgery Director, Spinal Oncology & Deformity Surgery University of North Caroling, Department of Neurosurgery Chapel Hill, North Carolina

Ziya L. Gokaslan, M.D.

Julius Stoll MD Professor and Chair, Department of Neurosurgery; Director of the Complex Spinal Surgery Fellowship Warren Alpert Medical School of Brown University Providence, Rhode Island

Luis Kolb, M.D.

Assistant Professor of Clinical Neurosurgery Yale School of Medicine New Haven, Connecticut

Miki Katzir, M.D.

Assistant Professor Neurosurgery, Director of Surgical Spine Oncology Nebraska Medicine, Fred & Pamela Buffett Cancer Center Omaha, Nebraska

Paul C. McCormick, M.D.

Professor, Dr. Bernhard Meyer

Herbert & Linda Gallen Professor of Neurological Surgery Spine Center Director Columbia University Irving Medical Center New York City, New York Professor of Neurosurgery TUM School of Medicine Munich, Germany

Neel Patel, M.D. Neurosurgery & Complex Spine DHR Health Edinburg, Texas