

43rd Annual Meeting & Course

Reaching New Heights in 2008!



SRS Annual Meeting Scientific Program

Thursday, September 11, 2008

7:55 - 8:00 am Welcome
Announcements

SESSION I

Moderators: Vernon T. Tolo, MD
Laurel C. Blakemore, MD

Adolescent Idiopathic Scoliosis

8:00 - 8:04 am **Risk Factors for Distal Adding-On**
Paper #1 **Identified: What to Watch Out For**
John Schlechter, DO; Peter O. Newton, MD; Vidyadhar V. Upasani, MD; Burt Yaszay, MD; Lawrence G. Lenke, MD; Randal R. Betz, MD; Thomas G. Lowe, MD; Harms Study Group

8:04 - 8:08 am **Accelerated Disc Degeneration below**
Paper #2 **Posterior Spinal Fusion for Idiopathic Scoliosis: A Long-Term MRI and Clinical Follow-Up**
Thomas Lawhorne, MD; Daniel W. Green, MD, FACS; Douglas N. Mintz, MD; Bernard A. Rawlins, MD; Stephen W. Burke, MD; Roger F. Widmann, MD; Oheneba Boachie-Adjei, MD

8:08 - 8:12 am **Subjacent Disc Wedging after Anterior**
Paper #3 **Spinal Fusion for Adolescent Idiopathic Scoliosis: The Fate of the "Jacked" Lumbar Disc**
Kathryn A. Keeler, MD; Keith H. Bridwell, MD; Lawrence G. Lenke, MD; Jennifer Flynn, BS

8:12 - 8:21 am Discussion

8:22 - 8:26 am **Genetic Profile Predicts Curve**
Paper #4 **Progression in Adolescent Idiopathic Scoliosis**
Kenneth Ward, MD; Lesa M. Nelson, BS; Rakesh Chettier, MS; John T. Braun, MD; James W. Ogilvie, MD

8:26 - 8:30 am **Genetic Association Study of Collagen**
Paper #5 **1 α 2 Gene in Adolescent Idiopathic Scoliosis - A Study of 520-Cases**
Hiu Yan Yeung, PhD; Prof. Nelson L. Tang; Vivian W. Hung; Rachel Kwok; Kwong Man Lee, PhD; Ling Qin; Bobby Kin wah Ng, MD; Yong Qui, MD; Jack Chun Yiu Cheng, MD

8:30 - 8:34 am **Predicting Brace-Resistant Adolescent**
Paper #6 **Idiopathic Scoliosis**
James W. Ogilvie, MD; Lesa M. Nelson, BS; Rakesh Chettier, MS; Therese Smith-Berry; Kenneth Ward, MD

8:34 - 8:43 am Discussion

8:44 - 8:48 am **Revision Surgery after 1057 Primary**
Paper #7 **Spine Fusions for Idiopathic Scoliosis over 19 Years: Identification of Causative Factors**
Scott J. Luhmann, MD; Lawrence G. Lenke, MD; Keith H. Bridwell, MD

8:48 - 8:52 am **Multiple Level Simultaneous Front and**
Paper #8 **Back Osteotomies of the Fusion Mass for Correction of Rigid Idiopathic Scoliosis with Failed Instrumentation**
Yasser ElMiligui, MD, FRCS; Wael Koptan, MD; Hazem B. Elsebaie, FRCS, MD

8:52 - 8:56 am **Posterior Vertebral Column Resection**
Paper #9 **(VCR) for Severe Pediatric Deformity: Minimum 2-Year Follow-Up on 29 Consecutive Patients**
Lawrence G. Lenke, MD; Patrick T. O'Leary, MD; Brenda A. Sides, MA; Linda Koester; Marsha Hensley; Keith H. Bridwell, MD

8:56 - 9:05 am Discussion

9:06 - 9:10 am **Increase Patient Satisfaction after Fusion**
Paper #10 **for Adolescent Idiopathic Scoliosis by Minimizing the Deformity-Flexibility Quotient**
Vidyadhar V. Upasani, MD; Peter O. Newton, MD; Jeff B. Pawelek, BS; Tracey P. Bastrom, MA; Lawrence G. Lenke, MD; Thomas G. Lowe, MD; David H. Clements, III, MD; Baron S. Lonner, MD; Randal R. Betz, MD; Harms Study Group



43rd Annual Meeting & Course

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Thursday, September 11, 2008 (continued)

9:10 - 9:14 am
Paper #11 **Selective Thoracic Fusion in Adolescent Idiopathic Scoliosis with Lenke Type 1C, 3C Or King Type 2 Lumbar Curves of More than 50 Degrees in Magnitude**
Cagatay Ozturk, MD; Azmi Hamzaoglu, MD; Marco G. Teli, MD, FGBOT; Mehmet Tezer, MD; Mehmet Aydogan, MD; Meric Enercan

9:14 - 9:18 am
Paper #12 **5-Year Clinical and Radiographic Results of Selective Thoracic Fusion with Lumbar Curve >40 Degrees**
Paul D. Sponseller, MD; Peter O. Newton, MD; Randal R. Betz, MD; David H. Clements, III, MD; Alvin H. Crawford, MD; Michael F. O'Brien, MD; Michelle C. Marks, PT, MA; Tracey P. Bastrom, MA

9:18 - 9:22 am
Paper #13 **Backfilling of Iliac Crest Defects with Hydroxyapatite-Calcium Triphosphate Biphasic Compound: A Prospective, Randomized, Single-Blind CT and Patient-Based Analysis**
Douglas C. Burton, MD; Barbara Manna, RN; Brandon B. Carlson, BS; Phillip Johnson, MD; Rudolph C. Glattes, MD

9:22 - 9:34 am Discussion

Early Onset Scoliosis

9:35 - 9:39 am
Paper #14 **Complications in 910 Growing Rod Surgeries: Use of Dual Rods and Submuscular Placement of Rods Decreases Complications**
R. Shay Bess, MD; Behrooz A. Akbarnia, MD; George H. Thompson, MD; Paul D. Sponseller, MD; David L. Skaggs, MD; Suken A. Shah, MD; Hazem B. Elsebaie, FRCS, MD; Oheneba Boachie-Adjei, MD; Lawrence I. Karlin, MD; Sarah K. Canale, BS; Connie Poe-Kochert, RN, BSN, CNP; Growing Spine Study Group

9:39 - 9:43 am
Paper #15 **Neurologic Risk in Growing Rod Surgery in Children: Is Neuromonitoring Necessary in All Cases?**
David L. Skaggs, MD; John B. Emans, MD; David S. Marks, FRCS; John P. Dormans, MD; George H. Thompson, MD; Suken A. Shah, MD; Paul D. Sponseller, MD; Behrooz A. Akbarnia, MD; Growing Spine Study Group

9:43 - 9:49 am Discussion

9:50 - 9:54 am
Paper #16 **Is Definitive Spinal Fusion, or VEPTR Removal, Needed after VEPTR Expansions are Over? An Analysis of the 39 "VEPTR Graduates"**
Jack M. Flynn, MD; Tricia St. Hilaire, BS; John B. Emans, MD; Randal R. Betz, MD; Robert M. Campbell, Jr., MD; Danielle Cameron, BA; Chest Wall and Spine Deformity Study Group

9:54 - 9:58 am
Paper #17 **Vertebral Body Stapling: A Treatment Option for the Growing Child with Scoliosis**
Randal R. Betz, MD; Ashish Ranade, MD; Amer F. Samdani, MD; Ross Chafetz, DPT, MPH; Linda P. D'Andrea, MD; Mr. John P. Gaughan; JahanGir Asghar, MD; Mr. Harsh Grewal; Mary Jane Mulcahey

9:58 - 10:02 am
Paper #18 **Clinical Significance of a Corrective Cast/Brace in the Era of Non-Fusion Surgery (Treatment for Early Onset Scoliosis with a Corrective Cast)**
Tsuji Taichi, MD; Noriaki Kawakami, MD; Kazuyoshi Miyasaka, MD; Tetsuya Ohara, MD; Ayato Nohara, MD

10:02 - 10:11 am Discussion

10:11 - 10:31 am Break



43rd Annual Meeting & Course

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Thursday, September 11, 2008 (continued)

SESSION II

Moderators: Sigurd H. Berven, MD
Khaled Kebaish, MD

Adult Spinal Deformity

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| 10:32 - 10:36 am
Paper #19 | Revision Rates Following Primary Adult Spinal Deformity Surgery: 667 Consecutive Patients Followed Up to 21 Years Postoperatively
<i>Mark Pichelmann, MD; Lawrence G. Lenke, MD; Christopher R. Good, MD; Patrick T. O'Leary, MD; Keith H. Bridwell, MD; Brenda A. Sides, MA</i> | 11:02 - 11:06 am
Paper #24 | Distal Anchor Selection for Adult Spinal Deformity (S1 vsS2/Ileum): The Effect on Sagittal Alignment and Outcomes
<i>Charles C. Edwards, II, MD; Keith H. Bridwell, MD; Michael Shainline, MS; Frank Schwab, MD; Sigurd H. Berven, MD; Christopher I. Shaffrey, MD; Steven D. Glassman, MD; Christopher L. Hamill, MD; Stephen L. Ondra, MD</i> |
| 10:36 - 10:40 am
Paper #20 | Survivorship of Primary Fusion for Adult Spinal Deformity: Rate, Reason, and Time of Reoperation
<i>James M. Mok, MD; Jordan M. Cloyd; David S. Bradford, MD; Serena S. Hu, MD; Vedat Deviren, MD; Jason Smith, MD; Sigurd H. Berven, MD</i> | 11:06 - 11:15 am | Discussion |
| 10:40 - 10:44 am
Paper #21 | Selection of Proximal Fusion Level for Degenerative Lumbar Scoliosis
<i>Kyu-Jung Cho, MD; Se-Il Suk, MD; Kee-Yong Ha, MD; Rack-Yong Chung, MD; Man-Hee Won, MD; Hyung-suk Kim, MD</i> | 11:16 - 11:20 am
Paper #25 | Extension of Fusion to Sacrum in Patients who had Previous Thoracolumbar Fusions to L5: Is it Simple or Complex Surgery?
<i>Murat Pekmezci, MD; Vedat Deviren, MD; Sigurd H. Berven, MD; David S. Bradford, MD; Serena S. Hu, MD</i> |
| 10:44 - 10:53 am | Discussion | 11:20 - 11:24 am
Paper #26 | A Matched Cohort Study of Long Adult Spinal Deformity Surgery to the Sacrum/Ilium Using rhBMP-2 versus Autogenous Iliac Crest Bone Graft
<i>Takeshi Maeda, MD; Jacob M. Buchowski, MD, MS; Keith H. Bridwell, MD; Linda Koester</i> |
| 10:54 - 10:58 am
Paper #22 | Comparative Analysis of Two Hybrid Instrumentation Techniques for Adult Lumbar Scoliosis from the Thoracolumbar Spine to L5 or S1
<i>Yongjung J. Kim, MD; Oheneba Boachie-Adjei, MD; Keith H. Bridwell, MD; Lawrence G. Lenke, MD; Youngbae B. Kim, MD; Thomas W. Lawhorne, MD</i> | 11:24 - 11:30 am | Discussion |
| 10:58 - 11:02 am
Paper #23 | Etiology and Revision Surgical Strategies in Failed Lumbosacral Fixation of Adult Spinal Deformity Constructs
<i>Katsumi Harimaya, MD; Lawrence G. Lenke, MD; Keith H. Bridwell, MD; Takuya Mishiro, PhD, MD; Linda Koester; Brenda A. Sides, MA</i> | 11:31 - 11:35 am
Paper #27 | Operative versus Non-Operative Treatment of Leg Pain in Adults with Scoliosis: A Retrospective Review of a Prospective Multicenter Database with Two-Year Follow-Up
<i>Justin S. Smith, MD, PhD; Christopher I. Shaffrey, MD; Sigurd H. Berven, MD; Steven D. Glassman, MD; Christopher L. Hamill, MD; William C. Horton, III, MD; Stephen L. Ondra, MD; Frank Schwab, MD; Kai-Ming Fu, MD, PhD; Keith H. Bridwell, MD</i> |



43rd Annual Meeting & Course

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Thursday, September 11, 2008 (continued)

11:35 - 11:39 am
Paper #28 **Surgical Outcomes of Decompression, Decompression with Limited Fusion and Decompression with Full Curve Fusion for Degenerative Scoliosis with Radiculopathy**
Raymond Topp, MD; Ensor E. Transfeldt, MD; Amir A. Mehbod, MD; Robert B. Winter, MD

11:39 - 11:45 am Discussion

11:45 - 11:50 am Harrington Lecture Introduction

11:51 am - 12:11 pm Harrington Lecture

Friday, September 12, 2008

7:55 - 8:00 am Announcements

Session III

Moderators: Serena S. Hu, MD
Noriaki Kawakami, MD

Spondylolisthesis

8:00 - 8:04 am
Paper #29 **Effects of Early Correction in High-Grade Developmental Spondylolisthesis L5/S1 on Sagittal Profile and Clinical Outcome**
Michael Ruf, MD; Rubens Jensen, MD; Prof. Harry R. Merk; Torsten Eichhorn, MD; Prof. Jürgen Harms, MD

8:04 - 8:08 am
Paper #30 **Sagittal Spino-Pelvic Alignment in Developmental Spondylolisthesis and its Potential Relevance for Reduction**
Jean-Marc Mac-Thiong, MD, PhD; Zhi Wang, MD; Jacques A. de Guise, PhD; Hubert Labelle, MD

8:08 - 8:12 am
Paper #31 **Radiological Assessment of L4-L5 Segment and Sacral Position after Surgical Reduction of L5-S1 Severe Spondylolisthesis and Spondyloptosis Throughout a Single Posterior Approach**
Jesus Burgos, MD; Prof. Carlos Barrios; Ignasi Sampera, MD; Eduardo Hevia, MD; Pedro Domenech, MD; Pedro R. Gutierrez, MD, PhD; Gabriel Piza, MD; Oscar G. Riquelme-García, MD, PhD; Ignacio Alvarez, MD; José I. Maruenda, MD; Enrique Recarte, MD

8:12 - 8:16 am
Paper #32 **The Relationship between Pelvic Balance and a Dome-Shaped Sacrum in L5-S1 Developmental Spondylolisthesis**
Pierre Roussouly, MD; Hubert Labelle, MD; Eric Berthonnaud, PhD; Serena S. Hu, MD; Courtney W. Brown, MD

8:16 - 8:28 am Discussion

Cervical Reconstruction

8:29 - 8:33 am
Paper #33 **Stand-Alone Anterior Reconstruction in Cervical Kyphosis: A Prospective Analysis**
Mihir R. Bapat, MS; Nanjundappa S. Harshavardhana, MS(Orth), Dip. SICOT; Kshitij S. Chaudhary, MS, DNB; Umesh S. Metkar, MS; Satyajit V. Marawar, MD; Prof. Vinod J. Laheri

8:33 - 8:37 am
Paper #34 **Circumferential Correction of Cervical Kyphosis Results in Improved Outcomes**
Sanjay S. Dhall, MD; Regis W. Haid, MD; Praveen V. Mummaneni, MD

8:37 - 8:43 am Discussion

Tumors

8:44 - 8:48 am
Paper #35 **Involvement of the Spine in Patients with Multiple Hereditary Exostosis (MHE)**
James W. Roach, MD; Joshua B. Klatt, MD; Nathan D. Faulkner, MS

8:48 - 8:52 am
Paper #36 **Posterior Stabilization Following Oncologic Resection of the Cervicothoracic Junction: A Review of 90 Consecutive Cases**
Peter S. Rose, MD; Ilya Laufer, MD; Jasmine Beria, MPH; Andrew R. Hanover, BA; Mark Bilsky, MD; Patrick Boland, MD

8:52 - 8:56 am
Paper #37 **Long Term Clinical Outcomes Following Attempted en bloc Resections for Malignant Primary Sacral Tumors**
Patrick C. Hsieh, MD; Daniel M. Sciubba, MD; Risheng Xu, BS; Matthew Mcgirt, MD; Clarke Nelson, BS; Jean-Paul Wolinsky, MD; Ziya L. Gokaslan, MD