

Joint Section on Disorders of the Spine and Peripheral Nerves

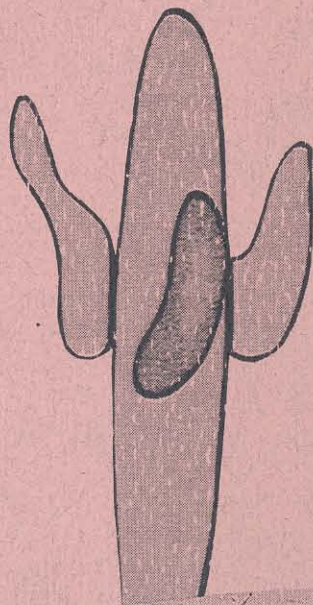
AANS/CNS

9TH ANNUAL MEETING

February 17-21, 1993

The Westin La Paloma

Tucson, Arizona



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The 9th Annual Meeting

Joint Section on Disorders of the Spine and Peripheral Nerves

The Westin La Paloma
Tucson, Arizona
February 17 - 21, 1993

The Joint Committee on Education of the American Association of Neurological Surgeons and the Congress of Neurological Surgeons is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians.

The Joint Committee on Education of the American Association of Neurological Surgeons and the Congress of Neurological Surgeons designates this continuing medical activity for 20 credit hours in Category 1 of the Continuing Education Award in Neurosurgery and for Physicians' Recognition Award of the American Medical Association.

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OFFICERS

Chairman:	Volker K. H. Sonntag, MD
Chairman-Elect:	Edward Tarlov, MD
Secretary:	Arnold H. Menezes, MD
Treasurer:	Russell L. Travis, MD
Immediate Past Chairman:	Carole A. Miller, MD
Members-at-Large:	Donald J. Prolo, MD
	Melville P. Roberts, MD
Ex-Officio:	Stewart B. Dunsker, MD

1993 ANNUAL MEETING COMMITTEE

Annual Meeting and Scientific Program Chairman:
Stephen Papadopoulos, MD
Ann Arbor, Michigan

Exhibit Chairman:
Mark N. Hadley, MD
Birmingham, Alabama

Scientific Program Committee:

- Charles Branch, MD
Winston-Salem, North Carolina
- David Cahill, MD
Tampa, Florida
- Curtis Dickman, MD
Phoenix, Arizona
- Richard Fessler, MD
Gainesville, Florida
- Regis Haid, MD
San Antonio, Texas
- Robert J. Martin, MD
Syracuse, New York
- Gary Rea, MD
Columbus, Ohio
- Moris Senegor, MD
Stockton, California
- John E. McGillicuddy, MD
Ann Arbor, Michigan
- Noel Perin, MD
Cincinnati, Ohio

PAST OFFICERS

1992

Volker K.H. Sonntag, M.D. - CHAIRMAN
Edward Tarlov, MD - CHAIRMAN-ELECT
Arnold H. Menezes, M.D. - SECRETARY
Russell L. Travis, M.D. - TREASURER
Donald J. Prolo, M.D. - MEMBER-AT-LARGE
Melville P. Roberts, M.D. - MEMBER-AT-LARGE

1991

Carole A. Miller, M.D. - CHAIRMAN
Volker K.H. Sonntag, M.D. - CHAIRMAN-ELECT
Arnold H. Menezes, M.D. - SECRETARY
Russell L. Travis, M.D. - TREASURER
Donald J. Prolo, M.D. - MEMBER-AT-LARGE
Melville P. Roberts, M.D. - MEMBER-AT-LARGE

1990

Edward S. Connolly, M.D. - CHAIRMAN
Carole A. Miller, M.D. - CHAIRMAN-ELECT
Volker K.H. Sonntag, M.D. - SECRETARY
Russell L. Travis, M.D. - TREASURER
Arnold H. Menezes, M.D. - MEMBER-AT-LARGE
Donald J. Prolo, M.D. - MEMBER-AT-LARGE

1989

Edward S. Connolly, M.D. - CHAIRMAN
Carole A. Miller, M.D. - CHAIRMAN-ELECT
Volker K.H. Sonntag, M.D. - SECRETARY
Russell L. Travis, M.D. - TREASURER
Arnold H. Menezes, M.D. - MEMBER-AT-LARGE
Donald J. Prolo, M.D. - MEMBER-AT-LARGE

1988

Stewart B. Dunsker, M.D. - CHAIRMAN
Carole A. Miller, M.D. - SECRETARY
Edward Tarlov, M.D. - TREASURER
Phanor L. Perot, Jr., M.D. - MEMBER-AT-LARGE
Volker K.H. Sonntag, M.D. - MEMBER-AT-LARGE

1987

Stewart B. Dunsker, M.D. - CHAIRMAN
Carole A. Miller, M.D. - SECRETARY
Edward Tarlov, M.D. - TREASURER
Phanor L. Perot, Jr., M.D. - MEMBER-AT-LARGE
Volker K.H. Sonntag, M.D. - MEMBER-AT-LARGE

1986

George W. Syper, M.D. - CHAIRMAN
Henry H. Schmidek, M.D. - SECRETARY
Edward S. Connolly, M.D. - TREASURER
Carole A. Miller, M.D. - MEMBER-AT-LARGE

1985

Russell W. Hardy, M.D. - CHAIRMAN
Henry H. Schmidek, M.D. - SECRETARY
Edward S. Connolly, M.D. - TREASURER
George W. Syper, M.D. - MEMBER-AT-LARGE

PREVIOUS MEETINGS

1985 - Greenlefe, Florida
1986 - San Diego, California
1987 - Boca Raton, Florida
1988 - Phoenix, Arizona
1989 - Cancun, Mexico
1990 - Captiva Island, Florida
1991 - Rancho Mirage, California
1992 - Miami, Florida

FUTURE MEETINGS

1994 - Fort Lauderdale, Florida
1995 - Phoenix, Arizona
1996 - Orlando, Florida

PAST PROGRAM COMMITTEES

1985	Barth A. Green, MD George W. Sypert, MD	1989	Arnold H. Menezes, MD Carole A. Miller, MD Russell Travis, MD John C. Godersky, MD Patrick W. Hitchon, MD
1986	Randall W. Smith, MD Philip R. Weinstein, MD John F. Howe, MD Stanley J. Goodman, MD Barth A. Green, MD Volker K.H. Sonntag, MD Hector E. James, MD	1990	Edward Tarlov, MD Bennett Blumenkopf, MD Paul D. Dernbach, MD Nancy Epstein, MD
1987	Volker K.H. Sonntag, MD Robert S. Hood, MD Joel N. Abromovitz, MD Timothy Harrington, MD	1991	Nancy Epstein, MD Joy Arpin, MD Lawrence Borges, MD Emily Friedman, MD Ben Benner, MD
1988	Melville P. Roberts, MD Volker Sonntag, MD Russell Travis, MD Harold A. Wilkinson, MD Richard Saunders, MD	1992	Gary Rea, MD Bennett Blumenkopf, MD Charles Branch, Jr., MD David Cahill, MD Richard Fessler, MD Stephen Papadopoulos, MD

MAYFIELD AWARD

1984	Mark N. Hadley, MD Phoenix, AZ	1989	Richard K. Simpson Jr., MD Houston, TX
1985	Ab Guha, MD Toronto, Ontario	1990	John Hurlbert, MD Toronto, Ontario
1986	No Award Presented	1991	Peter Gianaris, MD Eau Claire, WI
1987	John A. Feldenzer, MD Ann Arbor, MI	1992	Rajiv Midha, MD Toronto, Ontario
1988	No Award Presented	1993	Gerald F. Tuite, MD - Clinical Science Allan D.O. Levi, MD - Basic Science

LIFETIME ACHIEVEMENT AWARD

Joseph A. Epstein, MD, is the recipient of the 1993 Lifetime Achievement Award presented by the Joint Section on Disorders of the Spine and Peripheral Nerves.



Dr. Epstein received his Medical Degree from the Long Island College of Medicine in New York and began his post-graduate training at the Jewish Hospital of Brooklyn in 1943. Mount Sinai Hospital and Beth Israel Hospital are just a few of the institutions where Dr. Epstein served as a resident. Additionally, he trained with many outstanding physicians through his fellowships including, I.M. Tarlov, MD at the National Research Council in 1943, and with John F. Fulton in 1948 at the Dazian Foundation, Yale University School of Medicine. The Abramson Fellow in Neuropathology was granted to Dr. Epstein where he served from 1951 - 1952 with Joseph H. Globus, MD.

In 1942, the Mitchell Prize for the student best qualified in all departments, medical and surgical, was presented to Dr. Epstein.

In addition to his many accomplishments, Dr. Epstein is a member of various societies including the American Association of Neurological Surgeons, the Congress of Neurological Surgeons, the Cervical Spine Research Society, the New York State Society of Neurosurgeons, the International Society for the Study of the Lumbar Spine and the American Medical Association.

Appointments include Chief at the North Shore University Hospital in Manhasset, New York and more formerly, Chief at the Long Island Jewish Medical Center, where he is currently an Honorary attending physician.

For his dedication to the neurosurgical and medical field, the Joint Section on Disorders of the Spine and Peripheral Nerves is pleased to honor Dr. Epstein with the Lifetime Achievement Award.

EXHIBITORS

The officers and membership of the Joint Section on Disorders of the Spine and Peripheral Nerves of the American Association of Neurological Surgeons and the Congress of Neurological Surgeons appreciate the support of the following exhibitors for the 9th Annual Meeting:

Acro Med Corporation - Cleveland, OH
 Aesculap - South San Francisco, CA
 AME - Richardson, TX
 AMS, Inc. - Hayward, CA
 Anspach Effort, Inc. - Jupiter, FL
 BFW - Lexington, KY
 Bremer Medical, Inc. - Jacksonville, FL
 Clark's Professional Book Service - Scottsdale, AZ
 Codman & Shurtleff, Inc. - Randolph, MA
 Danek Medical, Inc. - Memphis, TN
 J.B. Lippincott - Phoenix, AZ
 Midas Rex Instruments - Fort Worth, TX
 Musculoskeletal Transplant Foundation - Holmdel, NJ
 Ohio Medical Instrument/Trademark Surgical Products-Cincinnati, OH
 PMT Corporation - Chanhassen, MN
 Smith & Nephew Richards - Memphis, TN
 Stryker Instruments - Kalamazoo, MI
 Synthes - Paoli, PA
 Thompson Surgical Instruments, Inc. - Traverse City, MI
 Wild Microscopes, Division of Leica, Inc. - Rockleigh, NJ

Spine Meeting Agenda

Wednesday, February 17, 1993

10:00 am - 8:30 pm

Registration

1:00 - 5:00 pm

Cervical Spine Stabilization Course - Murphey/Finger Rock Rooms

Peter Klara MD, PhD - Director

Faculty: Ronald I. Apfelbaum, MD, Bayard Campbell, MD, Curtis A.

Dickman, MD, Kevin T. Foley, MD, Regis Haid, Jr., MD, Gary L.

Lowery, MD, PhD, Paul K. Maurer, MD

6:30 pm

Opening Reception - Arizona Deck/Foyer

Thursday, February 18, 1993

6:30 am- 6:00 pm

Exhibits and Posters - Grand I-II

6:30 am - 7:30 am

Continental Breakfast - Grand I-II

7:30 am - 12:00 noon

General Session I - Canyon II-IV

"Bone Healing and Fixation"

Moderators: Charles Branch, MD and David Cahill, MD

7:30 - 7:40

Joint Section Chairman's Opening Remarks and Welcome

- Volker K. H. Sonntag, MD

7:40 - 7:45

Meeting Chairman's Opening Remarks and General Information

- Stephen Papadopoulos, MD

7:45 - 8:05

Biology of Bone Healing and Arthrodesis

- Philip R. Weinstein, MD, San Francisco, California

**Supported by an educational grant from American Medical Electronics, Inc., Codman & Shurtleff, Inc., Danek Medical Inc., and Stuart Medical Inc.

8:05 - 8:25

Alternative Substances in Bone Healing and Arthrodesis

-Richard Fessler MD, PhD, Gainesville, Florida

8:25 - 8:40

Update on Bone Banking

- Don Prolo, MD, San Jose, California

8:40 - 9:00

Biomechanics of Internal Fixation in the Cervical Spine

- Curtis Dickman, MD, Phoenix Arizona

9:00 - 9:30

Biomechanics of Internal Fixation in the Lumbar Spine

- John Kostuick, MD, Baltimore, Maryland**

9:30 am - 10:00 am

Break

10:00 am - 11:20 am

Contributed Papers

Moderators: Curtis Dickman, MD, and Regis Haid, MD

10:00 am - 10:10 am

1. The Cost of Cervical Instrumentation:

W. Bruce Cherny, MD, Christopher A. Brya, BS, Curtis A. Dickman, MD, Volker K.H. Sonntag, MD, Phoenix, Arizona

10:10 - 10:20

2. A New Technique For Anterior Cervical Interbody Fusion:

Ulrich Batzdorf, MD, J. Patrick Johnson, MD, Los Angeles, California

10:20 - 10:30

3. Biomechanical Analysis of Anterior Cervical Plates:

Vincent C. Traynelis, MD, J.D. Clausen, T.C. Ryken, R.M. Roach, V.K. Goel, Z. Zheng, G. Seenivasan, W.Z. Kong, Iowa City, Iowa

10:30 - 10:40

4. Preliminary Review of the Synthes® Anterior Cervical Spine Locking Plate System:

Richard A. Douglas, MD, Jack Wilberger, MD, Rick McKenzie, MD, Iain H. Kalfas, MD, Curtis A. Dickman, MD, Volker K.H. Sonntag, MD, Janine Drabier, RN, Pittsburgh, Pennsylvania

10:40 - 10:50

5. Anterior Decompression and Plate Fixation for Treatment of Postlaminectomy Kyphosis and Instability:

James M. Herman, MD, Volker K.H. Sonntag, MD, Phoenix, Arizona

10:50 - 11:00

6. C1-2 Posterior Transarticular Screw Fixation:

Ronald I. Apfelbaum, MD, Salt Lake City, Utah

11:00 - 11:10

7. Morphometric Characteristics of the Cervical Spine Lateral Mass:

David Niemann, MD, Frank A. Pintar, PhD, Narayan Yogananda, PhD, Joseph Cusick, MD, Dennis J. Maiman, MD, PhD, Milwaukee, Wisconsin

11:10 - 11:20

8. Long Term Outcome of Posterior Cervical Plating: Analysis of a Consecutive Series:

Michael G. Fehlings, MD, PhD, FRCS(C), Paul Cooper, MD, Thomas Errico, MD, Tracy DiBartolo, RN, MSN, Toronto, Ontario, Canada

11:20 am - 11:30 am

Chairman's Address Introduction

- Robert Spetzler, MD, Phoenix, Arizona

11:30 am - 12:00 noon

Chairman's Address - The Definition of a Neurosurgical Spine Surgeon: 1993

- Volker K. H. Sonntag, MD

12:00 noon - 1:00 pm

Lunch - Arizona Deck/Foyer

Provided for all registrants including spouses and children

1:00 pm - 5:00 pm

General Session II - Canyon II-IV

"Natural History and Treatment Options"

Moderators: Richard Fessler, MD PhD, and Robert Martin, MD

1:00 - 1:20

Rheumatoid Arthritis

- Arnold Menezes, MD, Iowa City, Iowa

1:20 - 1:40

Ankylosing Spondylitis and Pagets Disease

- Iain Kalfas, MD, Cleveland Ohio

1:40 - 2:00

Metastatic Spine Disease

- Narayan Sundaresan, MD, New York, New York

2:00 - 2:20

OPLL

-Hiroshi Abe, MD, Sapporo, Japan

2:20 - 2:40

Thoracic Disk Disease

- Marty Weiss, MD, Los Angeles, California

2:40 pm - 2:50 pm

Lifetime Achievement Award - Joseph Epstein, MD

presented by Volker K.H. Sonntag, MD

2:50 pm - 3:20 pm

Break

3:20 pm - 5:00 pm

Contributed Papers

Moderators: Noel Perrin, MD and Gary Rea, MD

3:20 - 3:30

9. Ossification of the Posterior Longitudinal Ligament in Evolution (OEV):

Nancy E. Epstein, MD, New Hyde Park, New York

3:30 - 3:40

10. Resurgence of Spinal Tuberculosis in the U.S.: The Emory Experience:

David W. Barnett, MD, Austin R.T. Colohan, MD, Atlanta, Georgia

3:40 - 3:50

11. Thoracic Epidural Abscess:

Leon K. Liem, MD, Daniele Rigamonti, MD, Aizik L. Wolf, MD, Walker Robinson, MD, Charles C. Edwards, MD, Arthur DiPatri, MD, Baltimore, Maryland

3:50 - 4:00

12. Sacrectomy: An Illustrated Method and Small Clinical Series:

Dennis E. McDonnell, MD, FACS, Steven J. Harrison, MS, FAMI, Augusta, Georgia

4:00 - 4:10

13. Simultaneous Combined Antero-Posterior Approach for Tumors of the Spine:

N. Sundaresan, MD, New York

4:10 - 4:20

14. Method of Exposure of the Cervico-Thoracic Junction:

Jules M. Nazzaro, MD, Ehud Arbit, MD, Michael Burt, MD, PhD, New York, New York

4:20 - 4:30

15. Quadrant Anatomy of the Lateral Cervical Masses:

Phillip McAllister, MD, T. Glenn Pait, MD, Howard H. Kaufman, MD, Morgantown, West Virginia

4:30 - 4:40

16. Posterior Cervical Stabilization with Lateral Mass Plates: Indications and Results in Fifty Patients:

Joseph D. Stern, MD, Stephen M. Papadopoulos, MD, Ann Arbor, Michigan

4:40 - 4:50

17. Thoracoscopic Resection of Thoracic Discs:

John J. Moossy, MD, Michael B. Horowitz, MD, Thomas, Julian, MD, Peter Ferson, MD, Pittsburgh, Pennsylvania

4:50 - 5:00

18. Histopathological Changes in the Cervical Cord and Brainstem in End-Stage Rheumatoid Arthritis:

Fraser C. Henderson, MD, Jennian F. Geddes, MD, John W. Stevens, MD, Alan Crockard, MD, Bethesda, Maryland

5:00 pm- 6:00 pm

**Open Poster Session I - Grand I-II
Wine and Cheese**

12 B Friday, February 19, 1993

6:30 am - 1:00 pm

Exhibits and Posters - Grand I-II

7:00am - 7:30 am

Continental Breakfast and Open Poster Session II

7:30am - 12:30 pm

General Session III - Canyon II-IV

"Advances in Spinal Injury"

Moderators: John McGillicuddy, MD and Robert Martin, MD

7:30 - 7:50

Advances in Radiologic Evaluation of Acute Spine Injury

- Burton Drayer, MD Phoenix, Arizona

7:50 - 8:10

Pharmacologic Treatment of Acute Spinal Cord Injury - Current and the Future

- Wise Young, MD, PhD, New York, New York

8:10 - 8:30

Advances in Surgical Treatment for Acute Spine Injuries

-Mark Hadley, MD, Birmingham, Alabama

8:30 - 8:50

Natural History and Rehabilitation of Spinal Cord Injury

-Robert Waters, MD, Downey, California**

8:50 - 9:10

Spinal Cord Regeneration - Present and Future

-Robert Dauser, MD, Ann Arbor, Michigan

9:10 am - 9:25 am

Clinical Science Mayfield Award Presentation and Talk -

Introduced by Donald Prolo, MD

19. Long Term Radiographic Changes and Clinical Outcome Following Standard Decompressive Lumbar Laminectomy:

Gerald F. Tuite, MD, S.E. Doran, MD, C.A. Lundquist, MD, D.I. Oyedijo, MD, S.V. Grube, RN, BSN, H.S. Gilmer, J.D. Stern, MD, S.E. Swanson, MD, F.S. Kirkpatrick, S.M. Papadopoulos, MD, J.E. McGillicuddy, MD, Ann Arbor, Michigan

9:25 am - 9:40am

Basic Science Mayfield Award Presentation and Talk -

Introduced by Donald Prolo, MD

20. The Functional Characteristics of Purified Cultured Human Schwann Cells Studied in Vivo:

Allan D.O. Levi, MD, V. Guenard, P. Aebischer, R.P. Bunge, Miami, Florida

9:40 am - 10:00 am

Contributed Papers

9:40 - 9:50

21. MRI Evaluation of Spinal Cord Injuries Without Radiographic Abnormalities:

Christian G. Zimmerman, MD, Curtis A. Dickman, MD, Volker K.H. Sonntag, MD, Phoenix, Arizona

9:50 - 10:00

22. Effect of CNTF on Neurite Outgrowth From Cultured Spinal Cord Neurons: Implications For Axonal Regeneration:

Nelson M. Oyesiku, MD, Donald J. Wigston, PhD, Atlanta, Georgia

10:00 am - 10:30 am

Break

10:30 am - 12:30 pm

Contributed Papers

Moderators: Moris Senegor, MD and David Cahill, MD

10:30 - 10:40

23. Prospective Evaluation of Stability of Traumatic Atlas Fractures:

Karl A. Greene, MD, PhD, Curtis A. Dickman, MD, Fredrick F. Marciano, MD, PhD, Phoenix, Arizona

10:40 - 10:50

24. Observations on Spontaneous Recovery from Intervertebral Disc Herniation:

Charles A. Fager, MD, Burlington, Massachusetts

10:50 - 11:00

25. Posterior Atlantoaxial Facet Screw Fixation:

Dean G. Karahalios, MD, Curtis A. Dickman, MD, Volker, K.H. Sonntag, MD, Paul Marcotte, MD, Phoenix, Arizona

11:00 - 11:10

26. Internal Fixation of the Cervical Spine Using Braided Titanium Cable:

Stephen E. Doran, MD, Gerald F. Tuite, MD, Stephen M. Papadopoulos, MD, Ann Arbor, Michigan

11:10 - 11:20

27. Short Segment Pedicle Fixation of Thoracolumbar Fractures: Early Clinical Experience:

James P. Hollowell, MD, Paul M. Arnold, MD, Dennis J. Maiman, MD, PhD, Milwaukee, Wisconsin

11:20 - 11:30

28. The Definition of Soft Tissue Injury Associated with Acute Cervical Spine Trauma by MRI:

Edward C. Benzel, MD, FACS, Blaine A. Hart, MD, Perry A. Ball, MD, Nevan G. Baldwin, MD, William W. Orrison, MD, Albuquerque, New Mexico

11:30 - 11:40

29. CSF MRI Motion Artifact Simulating Intradural, Extramedullary Thoracic Spine Lesions:

Bennett Blumenkopf, MD, Richard Berkman, MD, Nicholas Patronas, MD, Nashville, Tennessee

11:40 - 11:50

30. Radiological Evaluation of Cervical Spondylotic Disease: Limitations of Magnetic Resonance Imaging for Diagnosis and Preoperative Assessment:

Thomas B. Freeman, MD, Carlos Martinez, Tampa, Florida

11:50 - 12:00

31. Operative Approaches and Radiographic Analysis in the Treatment of Herniated Thoracic Discs:

James M. Markert, MD, Stephen Papadopoulos, MD, Ann Arbor, Michigan

12:00 - 12:10

32. Intraoperative Determination of Anterior Spinal Artery and Vertebral Artery Blood Velocities Using Doppler Ultrasound:

Bradford B. Mullin, MD, John M. McGregor, MD, Columbus, Ohio

12:10 - 12:20

33. Somatosensory Evoked Potential Monitoring in Spinal Surgery:

A. Norman Guthkelch, MD, Robert Dzioba, MD, Ozbil Temeltas, MD, Tucson, Arizona

12:20 - 12:30

34. Predictive Value of Somatosensory Evoked Potentials, h-reflexes and f-waves in Cervical Myelopathy:

Joseph F. Cusick, MD, Safwan Jaradeh, MD, Jitendra Baruah, MD, Rose Dotson, MD, Milwaukee, Wisconsin

12:30 pm - 1:00 pm

Business Meeting

1:00 pm - 2:00 pm

Lunch on own

2:00 pm - 5:00 pm

Consultants Corner - Murphey Room

Stewart Dunsker, MD - Director, Faculty: Wade Mueller, MD, Sanford Larson, MD, Bennet Blumenkopf, MD, Edward Benzel, MD, Dennis Maiman, MD, PhD, Volker K.H. Sonntag, MD, Burton Drayer, MD

2:00 pm - 5:00 pm

Anterior Thoracolumbar Spine Instrumentation Course -

Finger Rock

David Cahill, MD - Director, Faculty: Regis Haid, MD, Robert Ho, MD, Iain Kalfas, MD, Narayan Sundaresan, MD

2:00 pm - 5:00 pm

"Thoracic Outlet Syndrome" - Who Has It, What To Do About It -

Verbena Room

John McGillicuddy, MD - Director, Faculty: David Kline, MD, Russel Hardy, MD, James Campbell, MD, Alan Hudson, MD

6:30 pm - 11:00 pm

Annual Banquet

6:30 - 7:30

Reception - Arizona Deck / Foyer

7:30 - 11:00

Dinner & Dance - Canyon II -IV

Saturday, February 20, 1993

6:30 am - 1:00 pm

Exhibits and Posters - Grand I-II

6:30am - 7:30 am

Continental Breakfast and Open Poster Session II - Grand I-II

7:30 am - 12:30 pm

General Session IV - Canyon II-IV

"Natural History and Treatment Options in Degenerative Lumbar Spine Disease"

Moderators: Charles Branch, MD and Curtis Dickman, MD

7:30 - 7:50

Natural History and Conservative Treatment Options

- Stewart Dunsker, MD, Cincinnati, Ohio

7:50 - 8:10

Isthmic Spondylolisthesis

- Charlie Stillerman, MD, Los Angeles, California

8:10 - 8:30

Degenerative Spondylolisthesis and Scoliosis

- Edward Benzel, MD, Albuquerque, New Mexico

8:30 - 8:50

360° - Why, When, Who ?

-David Selby, MD, Dallas, Texas**

8:50 - 9:10

Collaborative Practice: Neurosurgery with/vs. Orthopaedics

- Hansen Yuan, MD, Syracuse, New York**

9:10 - 9:15

AME Fellowship Award - Ziya L. Gokaslan, MD, Baylor College of Medicine

-presented by Volker K.H. Sonntag, MD

9:15 am - 10:05 am

Contributed Papers

9:15 - 9:25

35. Disc Space Dimensions in the Lower Lumbar Spine:

Russell W. Hardy, Jr., MD, Cleveland, Ohio

9:25 - 9:35

36. The Effects of Straight Leg Raising on Spinal Nerve Root and Dura Motion and Strain and Influence of Spinal Fusion:

Randall M. Chesnut, MD, Stacia A. Smith, MD, Jennie B. Massie, BS, Steven R. Garfin, MD, San Diego, California

9:35 - 9:45

37. Cervical Spondylosis with Radiculopathy and No Myelopathy:

Scott A. Shapiro, MD, Tom Scully, MD, Robert Campbell, MD, John Mealey, MD, Robert Worth, MD, Tom Witt, MD, Indianapolis, Indiana

9:45 - 9:55

38. Quantitated Functional Outcome and Radiographic Findings After Laminectomy and Posterior Fixation for Cervical Stenosis:

Mark P. Redding, MD, Gary L. Rea, MD, PhD, Ronald D. Irsik, MD, Chris Reicosky, BS, Lawrence J. Mervis, MD, Columbus, Ohio

9:55 - 10:05

39. Cervical Spondylotic Myelopathy: Determination of the Appropriate Operative Approach. Review of 300 Cases:

Seth M. Zeidman, MD, Thomas B. Ducker, MD, Baltimore, Maryland

10:05 am - 10:30 am

Break

10:30 am - 1:00 pm

Contributed Papers

Moderators: Regis Haid, MD and Noel Perrin, MD

10:30 - 10:40

40. HLA-DR Expression by Arachnoid Cells: Evidence for Antigen Presentation in the Nerve Root Inflammation of Cervical Myeloradiculopathy:

Edmund H. Frank, MD, Portland, Oregon

10:40 - 10:50

41. SSEP Monitoring During Spine Surgery:

Michael T. Stechison, MD, PhD, FRCS(C), Shawn Reinhart, BS, Sophia Panagis, BA, Columbus, Ohio

10:50 - 11:00

42. Evaluating Post-Operative Epidural Fibrosis in a Rat Model:

Dr. Carl Laurysen, MBChB (UCT), Dr. Jerry Kreck, Dr. Bruce Tranmer, Calgary, Alberta, Canada

11:00 - 11:10

43. Lumbar Spinal Stenosis. Surgical Treatment and Results in 450 Patients:

Ivan Ciric, MD, Evanston, Illinois

11:10 - 11:20

44. Outcome of Therapy of Low Back Pain:

Don M. Long, MD, PhD, Warren S. Torgerson, PhD, Mohammed BenDebba, PhD, Baltimore, Maryland

11:20 - 11:30

45. An Analytical and Experimental Study of Lumbar Destabilization, Restabilization, and Bone Density:

Peter Sorini, MD, Gregory J. Bennett, MD, Hassan Sirhan, MS, Buffalo, New York

11:30 - 11:40

46. Prior Lumbar Surgery Response Correlated with Outcome of Lumbar Fusion:

Sanford H. Davne, MD, Donald L. Myers, MD, Francisco J. Battle, MD, Steven Mandel, MD, Philadelphia Pennsylvania

11:40 - 11:50

47. The Effectiveness of Decompressive Laminectomy Without Fusion in the Management of Lumbar Stenosis; Results of 202 Cases:

Ronald Reimer, MD, Robert Wharen, MD, Franklin Earnest, MD, Jacksonville, Florida

11:50 - 12:00

48. Threaded Steinmann Pin Fusion of the Craniovertebral Junction:

Paul J. Apostolides, MD, John G. Golfinas, MD, Curtis A. Dickman, MD, Stephen Papadopoulos, MD, Volker K.H. Sonntag, MD, Janine Drabier, RN, Phoenix, Arizona

12:00 - 12:10

49. A Biomechanically Improved Method of Sacral Fixation Utilizing Iliac Instrumentation and a New Variable Angle Screw Device:

Nevan G. Baldwin, MD, Edward C. Benzel, MD, Albuquerque, New Mexico

12:10 - 12:20

50. Cotrel-Dubousset Transpedicular Screw Fixation for Lumbar Degenerative Disease:

Arvind Ahuja, MD, James G. Egnatchik, MD, Buffalo, New York

12:20 - 12:30

51. Experimental and Analytical Study of Spinal Transpedicular Screws:

Gregory J. Bennett, MD, Peter Sorini, MD, Hassan Sirhan, MS, Buffalo, New York

12:30 - 12:40

52. Posterior Lumbar Interbody Fusion for Failed Back Syndrome:

Jamie Baisden, MD, Harold A. Wilkinson, MD, PhD, Worcester, Massachusetts

12:40 - 12:50

53. Biomechanics of Lumbar Facetectomy Under Cyclic Compression-flexion:

Narayan Yoganandan, PhD, Joseph Cusick, MD, John Reinartz, MS, Frank A. Pintar, PhD, Milwaukee, Wisconsin

12:50 - 1:00

54. Halo-Vest Management for Cervical Spine Fractures, Experience with 960 Cases:

M-Fazl, MD, FRCS(C), M. Schwartz, MD, FRCS(C), North York, Ontario, Canada

1:00 pm - 2:00 pm

Lunch on own

2:00 pm - 6:00 pm

Thoracic and Lumbar Spine Stabilization Course -

Murphey/Finger Rock Rooms

Paul McCormick, MD - Director, Faculty: Joseph Alexander, MD, Greg Bennett, MD, Curtis Dickman, MD, Parley Madsen, MD, Charles Stillerman, MD, Kris Zimmerman, MD

Sunday, February 21, 1993

8:00 am - 10:00 am

Hospitality Suite (open to all registrants)

Poster Session I

1. **Post-Operative Metallic Artifacts of the Cervical MRI:**
L. Philip Carter, MD, Ozbil M. Temeltas, MD, Mark T. Yoshino, MD, Timothy Lowe, MD, Ammar Darkazanli, MD, Tucson, Arizona
2. **New Radiographic Findings Seen with Magnetic Resonance in Cervical Spondylotic Myelopathy:**
Chris L. Reicosky, BS, Ronald D. Irsik, MD, Gary L. Rea, MD, PhD, Mark P. Redding, MD, Columbus, Ohio
3. **Dynamic Radiographic Assessment of Cervical Stenosis after Laminectomy and Lateral Fixation:**
Ronald D. Irsik, MD, Gary L. Rea, MD, PhD, Chris L. Reicosky, BS, Mark P. Redding, MD, Columbus, Ohio
4. **Posterior Atlantoaxial Screw Fixation: Experience with Ten Cases:**
Ryan Glasser, MD, Richard G. Fessler, MD, PhD, Gainesville, Florida
5. **Posterior Transarticular Screw Fixation for Atlantoaxial Instability:**
Travis Burt, MD, H. Louis Harkey, MD, Robert A. McGuire, MD, Jackson, Mississippi
6. **Rotatory Atlanto-Axial Subluxation as a Cause of Transient Vertebro-Basilar Ischemia: Identification of the Syndrome and Definitive Treatment with C1- C2 Fusion:**
Theodore W. Eller, MD, Chicago, Illinois
7. **Vertebrobasilar Insufficiency Following Cervical Spine Trauma:**
Mark W. Fox, MD, David G. Piepgras, MD, Rochester, Minnesota
8. **The Relationship of Cervical Foraminal Area to Anterior Discectomy With and Without a Graft:**
Michael A. Murphy, MBBS, FRACS, Mary Beth Trimble, RN, Iain H. Kalfas, MD, Cleveland Ohio
9. **Combined Results of Anterior Cervical Fusion Utilizing Autologous Bone Graft from the Cervical Vertebra:**
Richard C. Williams, MD, San Luis Obispo, California
10. **Radical Anterior Cervical Discectomy without Bone Grafting: Surgical Technique and Results in 155 Operations (184 Levels):**
W. Michael Vise, MD, Jackson, Mississippi
11. **Experiences and Complications of the Morscher Anterior Cervical Plating System (CFLPS):**
T. Glenn Pait, MD, Phillip McAllister, MD, Howard H. Kaufman, MD, Richard Anderson, MD, Crystl Willison, MD, Morgantown, W. Virginia
12. **A Quantitative Functional Database for the Evaluation of Patients with Cervical Spondylitic Myelopathy:**
Mark P. Redding, MD, Gary L. Rea, MD, PhD, Bradford B. Mullin, MD, Columbus, Ohio
13. **When Should an Acute Spinal Cord Injured Patient be Admitted to Rehabilitation?:**
H. Louis Harkey, MD, Pam Duchene, DNS, Ellen Lee, RN, MS, Jackson, Mississippi
14. **The Mortality Associated with Pediatric Spinal Injury:**
Mark G. Hamilton, MDCM, FRCSC, S. Terence Myles, MD, MSC, FRCSC, Phoenix, Arizona
15. **Intradural Cervical Lipoma:**
Timothy C. Ryken, MD, Arnold H. Menezes, MD, John C. Van Gilder, MD, Christopher M. Loftus, MD, Iowa City, Iowa
16. **Malignant Astrocytomas of the Spinal Cord. Clinico-Pathological Remarks on 21 Cases:**
Pasquale Ciappetta, MD, Maurizio Salvati, MD, Gualtiero Innocenzi, MD, Antonino Raco, MD, Roberto Delfini, MD, Giampaolo Cantore, MD, Rome, Italy
17. **Obliteration of a Vertebral Hemanoma by Intravertebral Injection of Absolute Ethanol:**
John D. Heiss, MD, John L. Doppman, MD, Edward H. Oldfield, MD, Bethesda, Maryland
18. **Stabilization in Treatment of Spinal Column Tumors:**
Bret A. Dirks, MD, Kenneth A. Follett, MD, PhD, Patrick W. Hitchon, MD, Iowa City, Iowa
19. **Coracoid Osteotomy for Exposure of the Distal Brachial Plexus:**
Kevin T. Foley, MD, Peter M. Klara, MD, PhD, Memphis, Tennessee
20. **The Detailed Surgical Anatomy of the Approaches to the Thoracolumbar and Lumbar Spine:**
Joel N. Abramovitz, MD, Abd El Moneim Mokbel, MBCh, MSc, Boston, Massachusetts
21. **The Value of Continuous Intraoperative EMG Recordings During Spinal Surgery:**
Robert M. Beatty, MD, Peggy McGuire, BA, Jeffrey Owens, PhD, Kansas City, Kansas

22. **Radiological Predictors of Outcome in Thoracic and Lumbar Fractures:**
Patrick W. Hitchon, MD, James C. Thorner, PhD, Loren-Mouw, MD, Iowa City, Iowa
23. **A New Method for Lumbar Lordosis Measurement:**
Konstantin Tchemoukha, MD, Donald H. Reigel, MD, Pittsburgh, Pennsylvania
24. **Selective L1 Dorsal Rhizotomy for Ilioinguinal Neuralgia:**
Perry Ball, MD, Edward C. Benzel, MD, William W. Orrison, Albuquerque, New Mexico
25. **Spinal Cord Blood Flow Response to L-NOARG, A Competitive Inhibitor of Endothelium-Derived Relaxing Factor:**
Loren Mouw, MD, Patrick W. Hitchon, MD, James Torner, PhD, Iowa City, Iowa
26. **Design Considerations for Axonal Transport of Intraneural MR Contrast Agents:**
Aaron G. Filler, MD, PhD, Franklyn Howe, PhD, H.R. Winn, MD, B.A. Bell, MD, JR Griffiths, PhD, Seattle, Washington
27. **Intraspinal Injections of Quisqualic Acid in the Adult Rat: A Model of Neurotoxicity and Syringomyelia:**
Parley W. Madsen, MD, PhD, Margarita Santana, BS, Sah-Hoon Park, MD, PHD, Robert P. Yezierski, PhD, Miami, Florida
28. **Anterior Lumbar Interbody Fusion: A Surgical Alternative for the Failed Back Surgery Syndrome:**
Miguel A. Melgar, MD, Robert E. M. Ho, MD, John Zinke, MD, Fernando G. Diaz, MD, PhD, Detroit, Michigan
29. **Indications, Technique and Results of Instrumentation with the Isola System:**
Jamie Ullman, MD, N. Sundaresan, MD, George V. DiGiacinto, MD, James E. O. Hughes, MD, Kyo Nijima, MD, New York, New York
30. **The Sequential Hook Insertion (SHI) Technique for Universal Spinal Instrumentation Application:**
Edward C. Benzel, MD, FACS, Perry A. Ball, MD, Nevan G. Baldwin, MD, Erich P. Marchand, MD, Albuquerque, New Mexico
31. **Re-Exploration of Instrumented Lumbar Spinal Fusion:**
Donald L. Myers, MD, Sanford H. Davne, MD, Francisco J. Battle, MD, Steven Mandel, MD, Philadelphia, Pennsylvania

32. **Weight Correlated with Outcome of Instrumented Lumbar Spinal Fusion:**
Donald L. Myers, MD, Sanford H. Davne, MD, Francisco J. Battle, MD, Steven Mandel, MD, Philadelphia, Pennsylvania
33. **The Effect of Level Fused on Outcome: L4-5 VS. L5-S1:**
Sanford H. Davne, MD, Donald L. Myers, MD, Francisco J. Battle, MD, Steven Mandel, MD, Philadelphia, Pennsylvania
34. **Improvement in Lifting Capacity Following a Five Week Exercise Program Initiated Two Weeks After Lumbar Laminectomy:**
John H. Margolis, MD, FACS, Stephen A. Barr, PhD, Raymond J. Poelstra, MD, FACS, Steven Stockelman, RN, MBA, Dayton, Ohio
35. **Reoperation in the Management of Recurrent Lumbar Radiculopathy: Prognostic Factors and Outcome in 55 Consecutive Cases:**
Peter G. Gianaris, MD, Joe Kirst, RN, BSN, CNRN, Eau Claire, Wisconsin
36. **Lumbar Synovial Joint Cysts: Diagnosis and Treatment:**
Robert B. Snow, MD, PhD, New York, New York
37. **Management of Isthmic Spondylolisthesis:**
Nagy Elwany, MD, Gamal Azab, MD, Alexandria, Egypt
38. **Intrathecal Versus Epidural Morphine in Lumbar Spine Surgery. A Comparative Study of Postoperative Pain Relief and Complications:**
Oisín R. O'Neill, MD, FRCSI, Hirohisa Ono, MD, Portland, Oregon

Poster Session II

1. **Cervical Intraspinal Neurenteric Cysts:**
Timothy C. Ryken, MD, Arnold H. Menezes, MD, Iowa City, Iowa
2. **The Spectrum of C2 Body Fractures:**
Edward C. Benzel, MD, FACS, Perry A. Ball, MD, Blaine L. Hart, MD, Nevan Baldwin, MD, William W. Orrison, MD, Albuquerque, New Mexico
3. **Treatment of Craniovertebral Instability:**
Hae Dong Jho, MD, PhD, Pittsburgh, Pennsylvania
4. **Assessment of CSF Dynamics in Patients with Chiari I Malformation and Hydromyelia using Cine-Phase Contrast Magnetic Resonance Imaging:**
Mark W. Fox, MD, Burton M. Onofrio, MD, Rochester, Minnesota
5. **Traumatic Atlanto-occipital Dislocation:**
A. Ahuja, MD, F.E. Glasauer, MD, G.J. Alker, MD, D.M. Klein, MD, Buffalo, New York
6. **New Techniques for Anterior Cervical Vertebrectomy with Fusion and Fixation Using Steinmann Pins:**
Otmar W. Albrand, MD, FACS, Ogden Utah
7. **Vertebrectomy with Posterior Stabilization in the Aged: Do Benefits Outweigh the Risks?:**
Mark A. Lyster, MD, Charles L. Branch, Jr, MD, Winston-Salem, North Carolina
8. **Initial Clinical Experience with Cervical Spine Locking Plate Stabilization of the Cervical Spine:**
Jay K. Morgan, MD, Abraham Rayhaun, MD, Jack P. Rock, MD, Robert Tiel, MD, Ghaus Malik, MD, Detroit, Michigan
9. **Stabilization After Anterior Cervical Corpectomy and Fusion with the Morscher Locking Plate System:**
Edmund H. Frank, MD, Timothy Johans, Oisin O'Neill, Michael Horgan, Timothy Keenen, Portland, Oregon
10. **Cervical Spine Instrumentation for Rheumatoid Arthritis:**
David I. Levy, MD, Volker K.H. Sonntag, MD, Phoenix, Arizona
11. **Lateral Displacement of the Dens:**
Perry Ball, MD, Blaine L. Hart, MD, Frederick W. Rupp, MD, Edward C. Benzel, MD, William W. Orrison, Albuquerque, New Mexico

12. **Posterior C1 C2 Stabilization with an Intra-Articular U-Shaped Graft for Pathologic and Post Odontoidectomy Instability:**
R. Pokrupa, G. Bertrand, Montreal, Quebec, Canada
13. **Preliminary Review of the Titanium Hollow Screw Plate in the Treatment of Cervical Spine Instability:**
Peter M. Klara, MD, PhD, Bayard B. Campbell, MD, Kevin T. Foley, MD, Memphis, Tennessee
14. **Preliminary Report of Twenty Titanium Hollow Screw Plating Procedures Performed without Fluoroscopy:**
J. Frederick Harrington, MD, J. Michael Alvis, MD, MariaElaina Sumas, MD, John Donnal, MD, Gregory Smith, MD, Frank Schinco, MD, Norfolk, Virginia
15. **Atlanto-Epistrophic Ligamentous Microsurgical Decompression of Division of the C2 Dorsal Root Ganglion in the Treatment of Greater Occipital Neuralgia:**
Michael T. Stechison, MD, PhD, FRCS(C), Bradford Mullin, MD, Columbus, Ohio
16. **Cervical Spondylosis with Myelopathy:**
Scott A. Shapiro, MD, Tom Scully, MD, Robert Campbell, MD, John Mealey, MD, Robert Worth, MD, Tom Witt, MD, Indianapolis, Indiana
17. **Transdural Approach to the Anterior Spinal Canal in Patients with Multilevel Cervical Spondylotic Myelopathy and Superimposed Central Soft Disc Herniation:**
Mark W. Fox, MD, Burton M. Onofrio, MD, Rochester, Minnesota
18. **Treatment of Cervical Ependymomas:**
Kris A. Smith, MD, Robert F. Spetzler, MD, Phoenix, Arizona
19. **Management of Solitary Spinal Plasmacytomas:**
Christian G. Zimmerman, MD, Volker K.H. Sonntag, MD, FACS, Phoenix, Arizona
20. **Longterm Outcome of Nonoperative Management of Cervical Spine Injuries in the Elderly:**
Gerard J. Fulda, MD, Yakov U. Koyfman, MD, David L. Sechler, MD, Elizabeth E. Stickles-Fulda, RN, MS, CCRN, Newark, Delaware
21. **Pathophysiology of Rheumatoid Spine Disease:**
R. Tyler Frizzell, MD, PhD, Mark N. Hadley, MD, Birmingham, Alabama
22. **Multiple Spinal Intracural Schwannomas in the Absence of Von Recklinghausen's Disease:**
Kent R. Duffy, MD, M. Daras, MD, B. Koppel, MD, C. Heise, MD, M. Mazzeo, MD, T. Poon, MD, Valhalla, New York

23. **Percutaneous Balloon Carpal Tunnel-Plasty:**
Lee Berger, MD, Paterson, New Jersey
24. **Pyriformis Syndrome Presenting as a Proximal Sciatic Mass Lesion:**
Robert K. Erickson, MD, Chicago, Illinois
25. **Windmill Pitcher's Radial Neuropathy:**
Grant P. Sinson, MD, Eric L. Zager, MD, David G. Kline, MD, Philadelphia, Pennsylvania
26. **In Situ Photocoagulation of Spinal Dural Arteriovenous Malformations using the Nd:YAG Laser:**
Douglas Chyatte, MD, John Strugar, MD, Chicago, Illinois
27. **Percutaneous Holmium: YAG Laser Discectomy Following Endoscopic Manual Removal of Posteriorly Herniated Portions of Lumbar Disc:**
Sangho Lee, MD, Sangjin Lee, MD, Kweonhee Park, MD, Ikmo Lee, MD, Kunghoon Sung, MD, Pusan, Korea
28. **Characterization of Optimum Laser Parameters for Percutaneous Laser Discectomy:**
Matthew R. Quigley, MD, Tommy Shih, MD, Amir Elrifai, MD, Joseph C. Maroon, MD, Michael L. Lesiecki, PhD, Pittsburgh, Pennsylvania
29. **Surgical Treatment of Lumbar Charcot Joint Following Thoracic Trauma:**
Paul N. Baek, MD, Paul M. Arnold, MD, Wade M Mueller, MD, Charles B. Stillerman, MD, Milwaukee, Wisconsin
30. **Thoracic Spinal Stenosis Associated with Renal Osteodystrophy: MRI and CT Diagnosis:**
V.G. Wagle, MD, A.J. Rossi, MD, M.P. Roberts, MD, Hartford, Connecticut
31. **Idiopathic Herniation of the Spinal Cord: A Rare, But Recognizable Syndrome:**
Lawrence F. Borges, MD, Boston, Massachusetts
32. **The Accuracy of Linear Measurements in the Assessment of Spinal Canal Compromise After Burst Fractures:**
E. Frank, MD, S. Bonsell, M. Rangitsch, T. Keenen, Portland, Oregon
33. **Lumbar Epidural Hemorrhage Associated with Disc Herniation: Results of MRI and Surgery:**
Kent R. Duffy, MD, Valhalla, New York

- 34. Lifting Capacity Measured After a Three Week Exercise Program for Patients with Low Back Pain:**
Stephen A. Barr, PhD, John H. Margolis, MD, FACS, Raymond J. Poelstra, MD, FACS, Steven Stockelman, RN, MBA, Dayton, Ohio
- 35. The Measurement of Lack of Effort on Back Strength Testing:**
John H. Margolis, MD, FACS, Stephen A. Barr, PhD, Raymond J. Poelstra, MD, FACS, Dayton, Ohio
- 36. Symptomatic Lumbar Epidural Varices:**
Michael H. Lavyne, MD, Gary A. Zimmerman, MD, Karen Weingarten, MD, New York, New York
- 37. CT Guided Needle Biopsy in the Diagnosis of Lumbar and Lower Extremity Pain: The Indications, Techniques, and Efficacy of Needle Biopsy:**
Peter G. Gianaris, MD, Andrea Gianaris, RN, Joseph Kirst, RN, Eau Claire, Wisconsin
- 38. The Use of Spinal Manipulation Therapy (SMT) for the Relief of Lumbar or Cervical Pain:**
Frank Powell, John P Henderson, MD, William C. Hanigan, MD, Peoria, Illinois
- 39. The Complications of Transpedicular Screw Fixation in Lumbar Spine Surgery:**
Jin-Myung Jung, MD, Jong Woo Han, MD, Eun Sang Kim, MD, Hyung Jin Shin, MD, Chinju, Korea