

CURRICULUM VITAE

RISHI K. WADHWA, M.D., FAANS

PHYSICIAN



1500 Line Avenue
Shreveport, LA 71101
(318) 629-5555
(318) 629-5556 Fax
rwadhwa@louisianaspine.org

EDUCATION/ WORK EXPERIENCE

7/2018 – Spine Institute of Louisiana, Shreveport, LA

5/2017- Board Certified- American Board of Neurological Surgery

7/2013-7/2018 - Assistant Professor, Department of Neurosurgery, University of California at San Francisco, UCSF Spine Center

7/2013-6/2014- Fellow in Minimally-Invasive and Complex Spinal Disorders,
University of California at San Francisco with Dr. Praveen Mummaneni

11/2013-7/2018- Staff Neurosurgeon, Marin General Hospital, Greenbrae, California

12/2015-7/2018 - Director of Spinal Surgery, Novato Community Hospital, Novato, California

7/2012-6/2013- Chief Resident, Neurosurgery, LSUHSC-Shreveport

10/2012-12/2012- Functional/ Pain Fellowship with Dr. Erich Richter at LSU-New Orleans Department of Neurosurgery

7/2007-6/2012- Resident, Neurosurgery, LSUHSC-S. Chairman: Anil Nanda, MD, MPH

7/2006-6/2013- Residency in Neurosurgery, Louisiana State University Health Sciences Center in Shreveport

-5/11- Passed AANS Primary Examination

8/2002-5/2006- Louisiana State University Health Sciences Center in Shreveport
M.D. received in May 2006

1998-2002 Louisiana State University, Baton Rouge, LA
 B.S. awarded in Microbiology
 Recipient of full-tuition scholarship
 Foreign study completed in Innsbruck, Austria

PUBLICATIONS

- 1) Wadhwa R**, Shamieh K, Haydel J, Caldito G, Williams M, Nanda A. The Role of Computed Tomography Scanning with Flexion and Extension Reconstruction (FECTR) in Clearing the Cervical Spine in Trauma Patients. *JNS: Spine: 2011 March: 14(3)*
***2009 AANS Poster: First Place in Trauma-Critical Care section**

2) Wadhwa R, Shaya M, Nanda A. Spinal Cord compression in a patient with a pain pump for failed back syndrome: A chalk-like precipitate mimicking a spinal cord neoplasm. *Neurosurgery: 2006 Volume 58 Number 2*

- 3)** Banarjee A, Brown B, **Wadhwa R**, Nanda A, Guthikonda B. When is Postero-Lateral Orbitotomy Useful in a Pterional Craniotomy: A Morphometric Study. *Skull Base 2011; 21(3):147-152*
- 4)** Jawahar A, **Wadhwa R**, Berk C, Caldito G, DeLaune A, Ampil F, Willis B, Smith D, Nanda A. The Assessment of Pain Control, Quality of Life, and Predictors of Success after Gamma Knife Radiosurgery for the Treatment of Trigeminal Neuralgia. *Neurosurgical Focus: 18(5):E8, May 2005*
- 5)** Cardenas R, **Wadhwa R**, Haydel J, Nanda A, Rao A, Caldito G. Pre-operative Amicar (Epsilon-Aminocaproic Acid): Does it Reduce Total Blood Loss in Lumbar Pedicle Screw Spinal Fusion? *Internet Journal of Neurosurgery: 2010 Volume 7 Number 1.*
- 6)** Sampath R, **Wadhwa R**, Tawfik T, Nanda A, Guthikonda B. Stereotactic Placement of Ventricular Catheters: Does it Affect Proximal Malfunction Rates? *Stereotactic and Functional Neurosurgery. 3/2011.*
- 7)** Thakur J, Sonnig A, Khan I, Chittiboina P, **Wadhwa R**, Nanda A. Humphrey Ridley (1653–1708): 17th century evolution in neuroanatomy and selective cerebrovascular injections for cadaver dissection. *Neurosurgical Focus. 7/2012.*
- 8)** Sonig A, Khan IS, **Wadhwa R**, Thakur JD, Nanda A. The Impact of Comorbidities, Regional Trends and Hospital factors on Discharge Dispositions and Hospital Costs following Acoustic Neuroma Microsurgery- A United States Nationwide Inpatient Data Sample Study (2005 to 2009). *Neurosurgical Focus. 9/2012.*
- 9)** **Wadhwa R**, Toms J, Nanda A, Guthikonda B. Hemorrhagic Subependymal Giant Cell Astrocytoma (SEGA) in a Patient with Tuberous Sclerosis: Case Report and Review of the Literature. *Neurology India. 2011*
- 10)** Cardenas R, Javalkar V, Haydel J, **Wadhwa R**, Fowler M, Scheithauer B, Nanda A. Papillary Tumor of Pineal Region: Prolonged Control Rate after Gamma Knife Radiosurgery- A Case Report and Review of the Literature. *Neurology India. May-Jun 2010 Volume 8 Issue 3*
- 11)** **Wadhwa R**, Toms J, Nanda A, Abreo K, Cuellar H. Angioplasty and Stenting of a Jugular-Carotid Fistula Resulting from the Inadvertent Placement of a Hemodialysis Catheter: Case Report and Review of Literature. *Seminars in Dialysis. 12/2011.*
- 12)** **Wadhwa R**, Thakur J, Nanda A, Guthikonda B. Sterile Hemorrhagic Brain Abscess in Infective Endocarditis: Case Report. *Neurology India. 4/11/12*
- 13)** **Wadhwa R**, Cardenas R, Wright J, Nanda A. Synoptic Philosophy in a Neurosurgical Residency: A Book and Cinema Club. *World Neurosurgery-*

October 2012.

- 14)** **Wadhwa R**, Toms J, Tawfik T, Glenn C, Chittiboina P, Caldito G, Guthikonda B, Nanda A. Dysphagia After Posterior Fossa Surgery: A Case for Early Enteral Feeding. *World Neurosurgery- March 2013.*
- 15)** Zhang S, **Wadhwa R**, Haydel J, Johnson K, Toms J, Guthikonda B. *Spine and Spinal Cord Trauma: diagnosis and management.* Neurology Clinics 2013. Elsevier.
- 16)** Saigal R, Lau D, **Wadhwa R**, Le H, Berven S, Chou D, Mummaneni P. Single vs Dual Iliac Screws for Spinopelvic Fixation: Are two screws better than one? *Neurosurg Focus. 2014 May;36(5):E10*
- 17)** Tran M, **Wadhwa R**, Ziewacz J, Mummaneni P, Chou D. A Comparison Between C1-2 Fixation With and Without Supplemental Posterior Wiring. *Evidenced-Based Spine Journal. Issue 01 · Volume 05 · April 2014*
- 18)** **Wadhwa R**, Thakur J, Khan I, Ahmed O, James J, Ogden A, Guthikonda B, Nanda A. Revision of Sub-optimally Placed Lumbar Pedicle Screws Decreases Pullout Strength and Alters Biomechanics of Construct: A Pilot Cadaveric Study. *World Neurosurg. 2015 Mar;83(3):368-75.*
- 19)** Mummaneni P, Whitmore P, Ziewacs J, **Wadhwa R**, Shaffrey C, Asher A, Heary R, Cheng J, Hurlber J, Douglas A, Smith J, Malhotra N, Dante S, Magge S, Kaiser M, Abbed K, Resnick D, Ghogawala Z. Cost-Effectiveness of Lumbar Discectomy and Single Level Fusion for Spondylolisthesis: Experience with the NeuroPoint SD Registry. *Neurosurg Focus. 2014 Jun;36(6):E3*
- 20) Dhall S, **Wadhwa R**, Tien A, Wang M, Mummaneni P. Traumatic Thoracolumbar Spinal Injury: An Algorithm for Minimally Invasive Surgical Management. *Neurosurg Focus. 2014;37(1):E9.*
- 21) Toms J, **Wadhwa R**, Ambekar S, Cuellar H. Bihemispheric posterior inferior cerebellar artery occurring with an azygos anterior cerebral artery: case study. *Case Rep Radiol. 2014.*
- 22) Lau D, Ziewacz J, Le H, **Wadhwa R**, Mummaneni P. A controlled anterior sequential interbody dilation technique for correction of cervical kyphosis. *J Neurosurg Spine. 2015 Jun 19:1-11*
- 23) **Wadhwa R**, Le H, Wu J, Mummaneni P. Complication Avoidance and Management Using the O-arm For Odontoid Screw Fixation: Techinal Note. *Manuscript Submitted to European Spine Journal-In Review.*
- 24) **Wadhwa R**, Dhall S, Lau D, Le H, Chou D, Mummaneni P. Perioperative morbidity and mortality comparison of cervical circumferential fusion for osteomyelitis versus cervical spondylotic myelopathy. *Neurosurg Focus. 2014 Aug;37(2):E7*

- 25) **Wadhwa R**, Mummaneni PV. High cervical instability in adult patients with Down syndrome. *World Neurosurg.* 2015 Mar;83(3):332-3. doi: 10.1016/j.wneu.2014.04.072. Epub 2014 May 4.
- 26) **Wadhwa R**, Mummaneni PV. Correlation of DTI MRI Metrics with Clinical Outcomes World Neurosurg. 2015 Apr;83(4):494-5. doi: 10.1016/j.wneu.2013.10.055. Epub 2013 Oct 24.
- 27) Le HV, **Wadhwa R**, Mummaneni P, Theodore P. Anterior Transsternal Approach for Treatment of Upper Thoracic Vertebral Osteomyelitis: Case Report and Review of the Literature. *Cureus.* 2015 Sep 16;7(9):e324. doi: 10.7759/cureus.324
- 28) Le HV, **Wadhwa R**, Mummaneni P, Theodore P. Excision of Thoracic Chondrosarcoma: Case Report and Review of Literature. *Cureus.* 2016 Jul 25;8(7):e708. doi: 10.7759/cureus.708.
- 29) **Wadhwa R**, et al. Risk factors for 30-day Reoperation and 3-month Readmission: Analysis from the N2QOD Lumbar Spine Registry. *JNS: Spine. Journal of Neurosurgery: Spine* Aug 2017 / Vol. 27 / No. 2 / Pages 131-136

BOOK CHAPTERS

- 1) Lu D, Roeser A, **Wadhwa R**, Mummaneni P. *C1 Lateral Mass Fixation.* In Cervical Spine Surgery Current Trends and Challenges. Quality Medical Publishing. In Publication.
- 2) Amim B, Ibrahim, **Wadhwa R**, Le H, Eichler C, Mummaneni P. *Is Interbody Fusion Always Necessary?*" In Adult Degenerative Scoliosis. In Publication.
- 3) Le H, **Wadhwa R**, Jha R, Mummaneni P. *Pelvic Fixation.* In "Complex Spinal Deformity" Roundtables in Spine Surgery. Quality Medical Publishing. In Publication.
- 4) Saigal R, **Wadhwa R**, Mummaneni P, Chou D. Minimally invasive extracavitary transpedicular corpectomy for the management of spinal tumors. *Neurosurgery Clinics North America.* In Publication.
- 5) Teegala R, **Wadhwa R**, Mummaneni V, Ziewacz J, Mummaneni P. Cervical Deformity. SRS E-Text Online
- 6) **Wadhwa R**, Le H, Saigal R, Mummaneni P. MIS tubular posterior far

lateral tubular discectomy. Spine Surgery, Tricks of the Trade, 3rd edition. Thieme Publishing.

7) **Wadhwa R**, Le H, Saigal R, Mummaneni P. Spinopelvic Fixation Techniques. Global Spinal Alignment. QMP Publishing. In Review Process

8) Benglis D, **Wadhwa R**, Mummaneni P, Haid R. Interspinous Process Fixation for Motion Preservation. Advanced Concepts in Lumbar Disk Disease. Springer Publishing.

9) **Wadhwa R**, Clark JP, Uribe JS, Mummaneni PV. Electrophysiological Studies Including Intraoperative Monitoring. Neurosurgery Knowledge Update. Thieme publishing.

GRAND ROUNDS

Wadhwa R. “Treating Complex and Deformity Cases in the First Few Years of Practice.” LSUHSC-S 10/13/2016

COMMENTARY/REVIEWS

- 1) **Wadhwa R**, Mummaneni P. “Correlation of Diffusion Tensor Magnetic Resonance Imaging Metrics with Clinical Outcomes.” Commentary on Clinical Correlates of High Cervical Fractional Anisotropy in Acute Spinal Cord Injury. *World Neurosurgery*, February 2014.
- 2) **Wadhwa R**, Mummaneni P. Perspective Statement on “Prevalence of Occipito-Atlanto and Atlanto-Axial Instability in Adults with Down’s Syndrome. *World Neurosurgery*
- 3) **Wadhwa R**, Mummaneni P. Publication Comment: Minimally Invasive Foraminotomy Through Tubular Retractors Via a Contralateral Approach in Patients with Unilateral Radiculopathy. *Neurosurgery*
- 4) Mummaneni P, **Wadhwa R**. Cervical Spine. 5th edition. Commentary. *Neurosurgery*
- 5) **Wadhwa R**. BIGGER IS NOT NECESSARILY BETTER: Minimally Invasive Spine Surgery. Marin Medical Society Magazine. January 2016
- 6) **Wadhwa R**. NFL concussion protocol under scrutiny. ABC News. 12/11/17

ABSTRACTS

Amin D, Kassam A, Lunsford L, Mintz A, Horowitz M, **Wadhwa R.**
Endoport Neurosurgery: Fully Endoscopic Stereotactic Guided Resection of Intraventricular and Intraaxial Tumors. Presented at Congress of Neurological Surgeons, San Diego, 2007

Kassam A, Hadjipanyas C, **Wadhwa R.**, Mintz A, Lunsford L. *Endoport Neurosurgery: Stereotactic Endoscopic Resection of Intraventricular Tumors. Presented at North American Skull Base Society, 2006.*

Wadhwa R., Nanda A. *3-D Reconstructions of aneurysms from 4-vessel angiography compared to intra-operative findings.* Presented at AANS 2010

Brown B, **Wadhwa R.**, Guthikonda B. *Pterional vs orbito-Frontal Craniotomy: Access to ACA, 3rd ventricle, optic canal, and ICA bifurcation.* Presented at NASBS 2008.

Sampath R, **Wadhwa R.**, Guthikonda B. *Stereotactic Guided Placement of Ventricular Catheters: Does it decrease proximal malfunction?* Abstract accepted to CNS and SNO 2009

Wadhwa R., Nanda A. *Swallowing Function after Posterior Fossa Surgery.* Presented at CNS 2010

Sonig A, Jordan C, **Wadhwa R.**, Ambekar S, Nanda A. *Factors affecting the hospitalization-cost, discharge-dispositions and mortality after cranial-surgeries at academic centers: National estimate of 333,532 United States elderly population.* Presented at CNS 2012.

Sonig A, **Wadhwa R.**, Ambekar S, Cuellar H, Nanda A. *Cooperative integration of divergent techniques of clipping and coiling at academic institutions-A United States nationwide inpatient data sample study.* Presented at CNS 2012.

Wadhwa R. A Comparison of Unilateral and Bilateral Pelvic Fixation in Adult Spinal Deformity Patients. Spine Section. Orlando 2014.

Wadhwa R. *Revision of Sub-optimally Placed Lumbar Pedicle Screws Decreases Pullout Strength and Alters Biomechanics of Construct: A Pilot Cadaveric Study.* Presented at CNS 2012.

Alexander R. Vaccaro, MD, PhD, MBA(1), Jonathan A. Harris, MS(2), Mir M. Hussain, BS(2), **Rishi Wadhwa, MD(3)**, Victor W. Chang, MD(4), Samuel R. Schroerlucke, MD(5), Walter P. Samora, MD(6), Peter G. Passias, MD(7), Rakesh D. Patel, MD(8), Ripul R. Panchal, MD(9), Sabino D'Agostino, DO(10), Nathaniel L. Whitney, MD(11), Neil R. Crawford, PhD(2), Brandon S. Bucklen, PhD(2) **Title:** Comparison of Novel Robotic Navigation System with Conventional Open Techniques: *In Vitro* Analysis of Accuracy, Dosage, and Time Required for Pedicle Screw Placement.
Accepted to ISASS 2018

Alexander R. Vaccaro, MD, PhD, MBA(1), Jonathan A. Harris, MS(2), Mir M. Hussain, BS(2), **Rishi Wadhwa, MD**(3), Victor W. Chang, MD(4), Samuel R. Schroerlucke, MD(5), Walter P. Samora, MD(6), Peter G. Passias, MD(7), Rakesh D. Patel, MD(8), Ripul R. Panchal, MD(9), Sabino D'Agostino, DO(10), Nathaniel L. Whitney, MD(11), Neil R. Crawford, PhD(2), Brandon S. Bucklen, PhD(2) *In Vitro Analysis of Accuracy, Dosage, and Time Required for Pedicle Screw Placement Using Conventional Percutaneous and Robotic-Assisted Techniques.* Accepted to ISASS 2018

PRESENTATIONS (ACADEMIC)

Mummaneni P, **Wadhwa R.** Stabilization of the Cervical Spine Following Tumorous Destruction. Scoliosis Research Society. Lyon, France. September 2013.

Mummaneni P, **Wadhwa R.** Cervical Deformity- Last Frontier for the Neurosurgeon. CNS. San Francisco. October 2013.

Mummaneni P, **Wadhwa R.** Cervical Arthroplasty and Motion Preservation Technologies. CNS. San Francisco. October 2013.

Mummaneni P, **Wadhwa R.** Applications of Minimally Invasive Surgery for Spinal Neoplasms. CNS. San Francisco. October 2013.

Mummaneni P, **Wadhwa R.** Cervico-thoracic junctional kyphosis. CNS. San Francisco. October 2013.

Mummaneni P, **Wadhwa R.** Debate: MIS versus Open TLIF. Scoliosis Research Society Meeting. Vancouver. July 2013.

Wadhwa R, Nanda A. Cervical Spine Clearance in Trauma Patients by Flexion and Extension CT with Reconstructions. Presented at Southern Neurosurgical Society. Sea Island, GA. 2007

Wadhwa R, Nanda A. Swallowing Function after Posterior Fossa Surgery. Presented at LANS 2010

Wadhwa R. Complex Case Presentations. 10th annual UCSF Spine Symposium, San Francisco. 2014

Wadhwa R. Neuromodulation for Pain. 11th annual UCSF Spine Symposium, San Francisco. 2014

Wadhwa R. Complex Spine Deformity Presentations. UCSF Spine Deformity Course, Las Vegas, Nevada. November 2015

Wadhwa R. Moderator- Image Guidance in Spine Surgery. CME Lunch Symposium at CNS/AANS Spine Section. 2016

Wadhwa R. MIS TLIF. UCSF Spine Deformity Course, Las Vegas,

Nevada. November 2016

Wadhwa R. Spine surgery APM and Medicare bundling initiatives. CNS Boston. 2017

Wadhwa R. Geriatric Odontoid Fracture Cases. CNS Boston. 2017

Wadhwa R. Complex Spine Deformity Presentations. UCSF Spine Deformity Course, Las Vegas, Nevada. November 2017

PRESENTATIONS (INDUSTRY-RELATED)

Wadhwa R. Posterior Cervical Spine Surgery. Globus Medical National Sales Meeting. Hollywood, FL. 1/2016

Wadhwa R. Essentials of Early Practice- Stryker Spine. Las Vegas, NV. 11/2016

Wadhwa R. Bundle Payments- SpineArt. Half Moon Bay, CA. 8/2017

Wadhwa R. Robotics In Spinal Surgery- Globus Medical at ISASS Meeting. 4/2017

Wadhwa R. Essentials of Early Practice- Stryker Spine. Las Vegas, NV. 11/2017

Wadhwa R. Fall Spinal Deformity- Stryker Spine. Las Vegas, NV. 11/2017

JOURNAL REVIEWER

2017-Present International Journal of Spinal Surgery

2016 World Neurosurgery

AWARDS

3/13 Recipient of 2013 AANS/CNS Spine Section Cloward Fellowship. \$30,000

1/12 Dr. Dean Echols Award for best scientific research presentation. Louisiana Neurosurgical Society. \$1000

4/09 ***2009 AANS Poster: First Place in Trauma-Critical Care section:**

The Role of Computed Tomography Scanning with Flexion and Extension Reconstruction (FECTR) in Clearing the Cervical Spine in Trauma Patients

3/06 Donald Smith, MD Award for Excellence in Neurosurgery. \$500

TEACHING / ACTIVITIES/APPOINTMENTS

1/17-current UCSF Project Leader, Spine Surgery Learning Committee
2017-present CSNS CNS Alternate Delegate (3-year term)
2016- present CNS/AANS Spine Section Executive Committee
2015-present Unaffiliated NFL Neurotrauma Consultant for SF 49ers and Oakland Raiders
2015-17 CNS Appointee for Council State Neurosurgical Societies
2015-current Director, Cadaver Lab, AANS/CNS Spine Section
11/14-11/16/13 Faculty, AANS Spine Course for Residents, Houston, Texas
7/13-present Principal Investigator, N2QOD project, UCSF Spine Center
7/13- present UCSF Spine Courses- Instructor

MEMBERSHIPS

2006-present American Association of Neurosurgical Surgeons
2006-present Congress of Neurological Surgeons
2002-present American Medical Association
2005-2006 Trigeminal Neuralgia Association
2002-2006 American Medical Student Association
2003-2006 Medical Legal Society at LSUHSC-S
• Planning Committee Director