

Stanford



Atman Desai, MD

Clinical Professor, Neurosurgery

CLINICAL OFFICE (PRIMARY)

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ACADEMIC CONTACT INFORMATION

- Administrative Assistant
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Bio

BIO

Atman Desai, MD, FAANS, FACS, is a Professor of Neurosurgery and Director of Neurosurgical Spine Oncology at Stanford University. Dr. Desai received his medical degree from the University of Cambridge. He completed his residency in Neurological Surgery at Dartmouth-Hitchcock Medical Center and completed a further fellowship in Spinal Oncology and Complex Spinal Reconstruction at Johns Hopkins Hospital. His clinical practice focuses on the surgical treatment of spine and spinal cord tumors. His research interests include the study and development of artificial intelligence and augmented reality in spine surgery, and the use of smartphone and wearable technology to accurately measure spine health.

CLINICAL FOCUS

- Spinal Tumors
- Scoliosis
- Minimally Invasive Surgery
- Spinal Degenerative Disease
- Robotic Spinal Surgery
- CyberKnife Radiosurgery
- Spinal Stenosis
- Neurosurgery

ACADEMIC APPOINTMENTS

- Clinical Professor, Neurosurgery
- Member, Stanford Cancer Institute

ADMINISTRATIVE APPOINTMENTS

- Physician Improvement Leader, Department of Neurosurgery, Stanford University, (2022- present)
- Wellbeing Director, Department of Neurosurgery, Stanford University, (2020- present)

- Chair, Neurosurgery Quality Council, Stanford University, (2018- present)
- Director of Neurosurgical Spine Oncology, Stanford University, (2015- present)

HONORS AND AWARDS

- Alpha Omega Alpha, Dartmouth College
- Henry Roy Dean Award, University of Cambridge
- NREF Post-Residency Clinical Fellowship Award, Neurosurgery Research and Education Foundation

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Continuing Medical Education Committee, American Association of Neurological Surgeons (2014 - present)
- Member, Stanford Cancer Institute (2016 - present)
- Faculty, American Association of Neurological Surgeons Coding and Reimbursement (2015 - present)
- Member, Bio-X (2015 - present)
- Member, Population Health Sciences (2015 - present)
- Member, Congress of Neurological Surgeons (2006 - present)
- Member, AO Spine North America (2014 - present)

PROFESSIONAL EDUCATION

- Fellowship: Johns Hopkins Neurosurgery Spine Fellowship (2014) MD
- Residency: Dartmouth Hitchcock Medical Center Neurosurgery Residency (2013) NH
- Internship: Dartmouth Hitchcock Medical Center Neurosurgery Residency (2007) NH
- Board Certification, American Board of Neurological Surgery (2018)
- Medical Education: University of Cambridge School of Clinical Medicine (2005) England
- MA, University of Cambridge (2006)
- BA, University of Cambridge (2002)

LINKS

- Medical Record Review: <https://stanfordhealthcare.org/second-opinion/medical-record-review.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Spinal disorders are exceedingly common across the population. Over the past 50 years, spine surgery has advanced tremendously and now many degenerative, traumatic and cancerous conditions of the spine can be safely and effectively treated with surgery leading to significant improvements in quality of life and life expectancy for patients with spinal conditions. Despite this, the indications, utilization, techniques, outcomes and economic costs of spine surgery are currently highly variable across the US and the rest of the world, and there remain many areas of inefficiency in providing optimal surgical care to patients. In this setting, artificial intelligence can be thought of as a tool for potentially useful applications that provide timely accurate diagnosis, in addition to standardized and evidence-driven treatments on a large scale at low cost. To advance this goal our lab has two major concurrent projects. The first is the investigation of the application of deep learning on radiographic imaging for diagnosis and treatment planning. The second goal is the study of the use of statistical modelling and machine learning in spine healthcare economics, and in particular whether artificial intelligence can advance personalized, precision medicine in addition to identifying novel and previously not hypothesized predictors of outcome and cost.

For more information please visit <https://med.stanford.edu/ai-spine>

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Vivek Sanker

Postdoctoral Research Mentor

Golnaz Moallem

Publications

PUBLICATIONS

- **Standardizing Continuous Physical Activity Monitoring in Patients with Cervical Spondylosis.** *Spine*
Maldaner, N., Gonzalez-Suarez, A. D., Tang, M., Fatemi, P., Leung, C., Desai, A., Tomkins-Lane, C., Zygourakis, C.
2024
- **Getting What You Pay For: Impact of Copayments on Physical Therapy and Opioid Initiation, Timing, and Continuation for Newly Diagnosed Low Back Pain.** *The spine journal : official journal of the North American Spine Society*
Jin, M. C., Jensen, M., Barros Guinle, M. I., Ren, A., Zhou, Z., Zygourakis, C. C., Desai, A. M., Veeravagu, A., Ratliff, J. K.
2024
- **Standardizing Physical Activity Monitoring in Patients With Degenerative Lumbar Disorders.** *Neurosurgery*
Maldaner, N., Tang, M., Fatemi, P., Leung, C., Desai, A., Tomkins-Lane, C., Zygourakis, C.
2023
- **Treatment of intramedullary spinal cord tumors: a modified Delphi technique of the North American Spine Society Section of Spine Oncology.** *Journal of neurosurgery. Spine*
Hersh, A. M., Pennington, Z., Lubelski, D., Elsamadicy, A. A., Dea, N., Desai, A., Gokaslan, Z. L., Goodwin, C. R., Hsu, W., Jallo, G. I., Krishnaney, A., Laufer, I., Lo, et al
2023: 1-10
- **Identification of Factors Associated With 30-Day Readmissions After Posterior Lumbar Fusion Using Machine Learning and Traditional Models: A National Longitudinal Database Study.** *Spine*
Rezaii, P. G., Herrick, D., Ratliff, J. K., Rusu, M., Scheinker, D., Desai, A. M.
2023
- **Extreme Far-Lateral Approach for Recurrent Chordoma: 3-Dimensional Operative Video.** *Operative neurosurgery (Hagerstown, Md.)*
Vigo, V., Asmaro, K. P., Nunez, M. A., Bobrow, A., Dodd, R. L., Desai, A., Fernandez-Miranda, J. C.
2023
- **Augmented Reality-Assisted Resection of a Large Presacral Ganglioneuroma: 2-Dimensional Operative Video.** *Operative neurosurgery (Hagerstown, Md.)*
Medress, Z. A., Bobrow, A., Tigchelaar, S. S., Henderson, T., Parker, J. J., Desai, A.
2022
- **Utilization Trends, Cost, and Payments for Adult Spinal Deformity Surgery in Commercial and Medicare-Insured Populations.** *Neurosurgery*
Wadhwa, H., Leung, C., Sklar, M., Ames, C. P., Veeravagu, A., Desai, A., Ratliff, J., Zygourakis, C. C.
2022
- **Augmented reality neuronavigation for en bloc resection of spinal column lesions.** *World neurosurgery*
Tigchelaar, S. S., Medress, Z. A., Quon, J., Dang, P., Barber, D., Bobrow, A., Kin, C., Louis, R., Desai, A.
2022
- **Health Care Resource Utilization in Management of Opioid-Naïve Patients With Newly Diagnosed Neck Pain.** *JAMA network open*
Jin, M. C., Jensen, M., Zhou, Z., Rodrigues, A., Ren, A., Barros Guinle, M. I., Veeravagu, A., Zygourakis, C. C., Desai, A. M., Ratliff, J. K.
2022; 5 (7): e2222062
- **Prediction of Discharge Status and Readmissions after Resection of Intradural Spinal Tumors.** *Neurospine*

- Jin, M. C., Ho, A. L., Feng, A. Y., Medress, Z. A., Pendharkar, A. V., Rezaii, P., Ratliff, J. K., Desai, A. M.
2022; 19 (1): 133-145
- **Surgical Outcomes of Human Immunodeficiency Virus-positive Patients Undergoing Lumbar Degenerative Surgery.** *Clinical spine surgery*
Varshneya, K., Wadhwa, H., Ho, A. L., Medress, Z. A., Stienen, M. N., Desai, A., Ratliff, J. K., Veeravagu, A.
2021
 - **External validation of a predictive model of adverse events following spine surgery.** *The spine journal : official journal of the North American Spine Society*
Fatemi, P., Zhang, Y., Han, S. S., Purington, N., Zygourakis, C. C., Veeravagu, A., Desai, A., Park, J., Shuer, L. M., Ratliff, J. K.
2021
 - **Metastatic Paraganglioma of the Spine With SDHB Mutation: Case Report and Review of the Literature.** *International journal of spine surgery*
Jabarkheel, R., Pendharkar, A. V., Lavezo, J. L., Annes, J., Desai, K., Vogel, H., Desai, A. M.
2021; 14 (s4): S37-S45
 - **Advanced Age Does Not Impact Outcomes After 1-level or 2-level Lateral Lumbar Interbody Fusion.** *Clinical spine surgery*
Wadhwa, H., Oquendo, Y. A., Tigchelaar, S. S., Warren, S. I., Koltsov, J. C., Desai, A., Veeravagu, A., Alamin, T. F., Ratliff, J. K., Hu, S. S., Cheng, I.
2021
 - **Defining and Describing Treatment Heterogeneity in New-Onset Idiopathic Lower Back and Extremity Pain Through Reconstruction of Longitudinal Care Sequences.** *The spine journal : official journal of the North American Spine Society*
Jin, M. C., Azad, T. D., Fatemi, P., Ho, A. L., Vail, D., Zhang, Y., Feng, A. Y., Kim, L. H., Bentley, J. P., Stienen, M. N., Li, G., Desai, A. M., Veeravagu, A., et al
2021
 - **Obesity in Patients Undergoing Lumbar Degenerative Surgery-A Retrospective Cohort Study of Postoperative Outcomes.** *Spine*
Varshneya, K., Wadhwa, H., Stienen, M. N., Ho, A. L., Medress, Z. A., Aikin, J., Li, G., Desai, A., Ratliff, J. K., Veeravagu, A.
2021; 46 (17): 1191-1196
 - **Single vs Multistage Surgical Management of Single and Two-Level Lumbar Degenerative Disease.** *World neurosurgery*
Varshneya, K., Wadhwa, H., Stienen, M. N., Ho, A. L., Medress, Z. A., Herrick, D. B., Desai, A., Ratliff, J. K., Veeravagu, A.
2021
 - **Predictive Modeling of Long-Term Opioid and Benzodiazepine Use after Intradural Tumor Resection.** *The spine journal : official journal of the North American Spine Society*
Jin, M. C., Ho, A. L., Feng, A. Y., Zhang, Y., Staartjes, V. E., Stienen, M. N., Han, S. S., Veeravagu, A., Ratliff, J. K., Desai, A. M.
2020
 - **The Effect of Socioeconomic Status on Age at Diagnosis and Overall Survival in Patients with Intracranial Meningioma.** *The International journal of neuroscience*
Brewster, R., Deb, S., Pendharkar, A. V., Ratliff, J., Li, G., Desai, A.
2020: 1-12
 - **A Comparative Analysis of Patients Undergoing Fusion for Adult Cervical Deformity by Approach Type.** *Global spine journal*
Varshneya, K., Medress, Z. A., Stienen, M. N., Nathan, J., Ho, A., Pendharkar, A. V., Loo, S., Aikin, J., Li, G., Desai, A., Ratliff, J. K., Veeravagu, A.
2020: 2192568220915717
 - **A Comparative Analysis of Patients Undergoing Fusion for Adult Cervical Deformity by Approach Type** *GLOBAL SPINE JOURNAL*
Varshneya, K., Medress, Z. A., Stienen, M. N., Nathan, J., Ho, A., Pendharkar, A. V., Loo, S., Aikin, J., Li, G., Desai, A., Ratliff, J. K., Veeravagu, A.
2020
 - **Objective activity tracking in spine surgery: a prospective feasibility study with a low-cost consumer grade wearable accelerometer.** *Scientific reports*
Stienen, M. N., Rezaii, P. G., Ho, A. L., Veeravagu, A., Zygourakis, C. C., Tomkins-Lane, C., Park, J., Ratliff, J. K., Desai, A. M.
2020; 10 (1): 4939
 - **Postoperative Complication Burden, Revision Risk, and Health Care Use in Obese Patients Undergoing Primary Adult Thoracolumbar Deformity Surgery** *GLOBAL SPINE JOURNAL*
Varshneya, K., Pangal, D. J., Stienen, M. N., Ho, A. L., Fatemi, P., Medress, Z. A., Herrick, D. B., Desai, A., Ratliff, J. K., Veeravagu, A.
2020
 - **Postoperative Complication Burden, Revision Risk, and Health Care Use in Obese Patients Undergoing Primary Adult Thoracolumbar Deformity Surgery** *Global spine journal*

- Varshneya, K., Pangal, D. J., Stienen, M. N., Ho, A. L., Fatemi, P., Medress, Z. A., Herrick, D. B., Desai, A., Ratliff, J. K., Veeravagu, A.
2020; 2192568220904341
- **Functional Mapping for Glioma Surgery: A Propensity-matched Analysis of Outcomes and Cost.** *World neurosurgery*
Pendharkar, A. V., Rezaii, P. G., Ho, A. L., Sussman, E. S., Li, G. n., Desai, A. M.
2020
 - **A Predictive-Modeling Based Screening Tool for Prolonged Opioid Use after Surgical Management of Low Back and Lower Extremity Pain.** *The spine journal : official journal of the North American Spine Society*
Zhang, Y. n., Fatemi, P. n., Medress, Z. n., Azad, T. D., Veeravagu, A. n., Desai, A. n., Ratliff, J. K.
2020
 - **Conventional Versus Stereotactic Image Guided Pedicle Screw Placement During Spinal Deformity Correction: A Retrospective Propensity Score-Matched Study of a National Longitudinal Database.** *The International journal of neuroscience*
Rezaii, P. G., Pendharkar, A. V., Ho, A. L., Sussman, E. S., Veeravagu, A. n., Ratliff, J. K., Desai, A. M.
2020: 1–13
 - **Association between Physician Industry Payments and Cost of Anterior Cervical Discectomy and Fusion in Medicare Beneficiaries.** *World neurosurgery*
Liu, C. n., Ahmed, K. n., Chen, C. L., Dudley, R. A., Gonzales, R. n., Orrico, K. n., Yerneni, K. n., Stienen, M. N., Veeravagu, A. n., Desai, A. n., Park, J. n., Ratliff, J. K., Zygourakis, et al
2020
 - **Adverse Events and Bundled Costs after Cranial Neurosurgical Procedures: Validation of the LACE Index Across 40,431 Admissions and Development of the LACE-Cranial Index.** *World neurosurgery*
Jin, M. C., Wu, A. n., Medress, Z. A., Parker, J. J., Desai, A. n., Veeravagu, A. n., Grant, G. A., Li, G. n., Ratliff, J. K.
2020
 - **Opioid Use in Adults with Low Back or Lower Extremity Pain who Undergo Spine Surgical Treatment within One Year of Diagnosis.** *Spine*
Fatemi, P. n., Zhang, Y. n., Ho, A. n., Lama, R. n., Jin, M. n., Veeravagu, A. n., Desai, A. n., Ratliff, J. K.
2020
 - **Cervical osteochondroma: surgical planning.** *Spinal cord series and cases*
Fowler, J. n., Takayanagi, A. n., Siddiqi, I. n., Ghanchi, H. n., Siddiqi, J. n., Veeravagu, A. n., Desai, A. n., Vrionis, F. n., Hariri, O. R.
2020; 6 (1): 44
 - **Normative data of a smartphone app-based 6-minute walking test, test-retest reliability, and content validity with patient-reported outcome measures.** *Journal of neurosurgery. Spine*
Tosic, L. n., Goldberger, E. n., Maldaner, N. n., Sosnova, M. n., Zeitlberger, A. M., Staartjes, V. E., Gadjradj, P. S., Eversdijk, H. A., Quddusi, A. n., Gandía-González, M. L., Sayadi, J. J., Desai, A. n., Regli, et al
2020: 1–10
 - **Digital transformation in spine research and outcome assessment.** *The spine journal : official journal of the North American Spine Society*
Maldaner, N. n., Tomkins-Lane, C. n., Desai, A. n., Zygourakis, C. C., Weyerbrock, A. n., Gautschi, O. P., Stienen, M. N.
2020; 20 (2): 310–11
 - **Adult Spinal Deformity Surgery in Patients With Movement Disorders: A Propensity-matched Analysis of Outcomes and Cost.** *Spine*
Varshneya, K. n., Azad, T. D., Pendharkar, A. V., Desai, A. n., Cheng, I. n., Karikari, I. n., Ratliff, J. K., Veeravagu, A. n.
2020; 45 (5): E288–E295
 - **Improving the Patient-Physician Relationship in the Digital Era - Transformation From Subjective Questionnaires Into Objective Real-Time and Patient-Specific Data Reporting Tools.** *Neurospine*
Maldaner, N., Desai, A., Gautschi, O. P., Regli, L., Ratliff, J. K., Park, J., Stienen, M. N.
2019; 16 (4): 712–14
 - **Timing of Adjuvant Radiation Therapy and Risk of Wound-Related Complications Among Patients With Spinal Metastatic Disease.** *Global spine journal*
Azad, T. D., Varshneya, K., Herrick, D. B., Pendharkar, A. V., Ho, A. L., Stienen, M., Zygourakis, C., Bagshaw, H. P., Veeravagu, A., Ratliff, J. K., Desai, A.
2019: 2192568219889363
 - **Timing of Adjuvant Radiation Therapy and Risk of Wound-Related Complications Among Patients With Spinal Metastatic Disease** *GLOBAL SPINE JOURNAL*
Azad, T. D., Varshneya, K., Herrick, D. B., Pendharkar, A., Ho, A. L., Stienen, M., Zygourakis, C., Bagshaw, H. P., Veeravagu, A., Ratliff, J. K., Desai, A.

2019

● **Outcomes After Cervical Disc Arthroplasty Versus Stand-Alone Anterior Cervical Discectomy and Fusion: A Meta-Analysis** *GLOBAL SPINE JOURNAL*

Gendreau, J. L., Kim, L. H., Prins, P. N., D'Souza, M., Rezaii, P., Pendharkar, A., Sussman, E. S., Ho, A. L., Desai, A. M.
2019

● **Outcomes After Cervical Disc Arthroplasty Versus Stand-Alone Anterior Cervical Discectomy and Fusion: A Meta-Analysis.** *Global spine journal*

Gendreau, J. L., Kim, L. H., Prins, P. N., D'Souza, M., Rezaii, P., Pendharkar, A. V., Sussman, E. S., Ho, A. L., Desai, A. M.
2019; 2192568219888448

● **Propensity-matched Comparison of Outcomes and Costs After Macroscopic and Microscopic Anterior Cervical Corpectomy Using a National Longitudinal Database.** *Spine*

Ho, A. L., Rezaii, P. G., Pendharkar, A. V., Sussman, E. S., Veeravagu, A., Ratliff, J. K., Desai, A. M.
2019; 44 (21): E1281–E1288

● **Conventional Versus Stereotactic Image-guided Pedicle Screw Placement During Posterior Lumbar Fusions: A Retrospective Propensity Score-matched Study of a National Longitudinal Database.** *Spine*

Pendharkar, A. V., Rezaii, P. G., Ho, A. L., Sussman, E. S., Veeravagu, A., Ratliff, J. K., Desai, A. M.
2019; 44 (21): E1272–E1280

● **Trends in Anterior Lumbar Interbody Fusion in the United States: A MarketScan Study From 2007 to 2014.** *Clinical spine surgery*

Varshneya, K., Medress, Z. A., Jensen, M., Azad, T. D., Rodrigues, A., Stienen, M. N., Desai, A., Ratliff, J. K., Veeravagu, A.
2019

● **Objective measures of functional impairment for degenerative diseases of the lumbar spine: a systematic review of the literature** *SPINE JOURNAL*

Stienen, M. N., Ho, A. L., Staartjes, V. E., Maldaner, N., Veeravagu, A., Desai, A., Gautschi, O. P., Bellut, D., Regli, L., Ratliff, J. K., Park, J.
2019; 19 (7): 1276–93

● **Patient Satisfaction and Press Ganey Scores for Spine Versus Nonspine Neurosurgery Clinics.** *Clinical spine surgery*

Chen, Y., Johnson, E., Montalvo, C., Stratford, S., Veeravagu, A., Tharin, S., Desai, A., Ratliff, J., Shuer, L., Park, J.
2019

● **Socioeconomic Predictors of Surgical Resection and Survival for Patients With Osseous Spinal Neoplasms** *CLINICAL SPINE SURGERY*

Deb, S., Brewster, R., Pendharkar, A., Veeravagu, A., Ratliff, J., Desai, A.
2019; 32 (3): 125–31

● **Socioeconomic Predictors of Pituitary Surgery.** *Cureus*

Deb, S., Vyas, D. B., Pendharkar, A. V., Rezaii, P. G., Schoen, M. K., Desai, K., Gephart, M. H., Desai, A.
2019; 11 (1): e3957

● **Outcomes and costs following Ommaya placement with thrombocytopenia among US cancer patients.** *World neurosurgery*

Zhang, M. n., Zhang, Y. n., Zheng, E. n., Gephart, M. H., Veeravagu, A. n., Desai, A. n., Ratliff, J. K., Li, G. n.
2019

● **Reliability of the 6-minute walking test smartphone application.** *Journal of neurosurgery. Spine*

Stienen, M. N., Gautschi, O. P., Staartjes, V. E., Maldaner, N. n., Sosnova, M. n., Ho, A. L., Veeravagu, A. n., Desai, A. n., Zygourakis, C. C., Park, J. n., Regli, L. n., Ratliff, J. K.
2019: 1–8

● **Analysis of Outcomes and Cost of Inpatient and Ambulatory Anterior Cervical Disk Replacement Using a State-level Database.** *Clinical spine surgery*

Purger, D. A., Pendharkar, A. V., Ho, A. L., Sussman, E. S., Veeravagu, A. n., Ratliff, J. K., Desai, A. M.
2019

● **Clinical efficacy of frameless stereotactic radiosurgery in the management of spinal metastases from thyroid carcinoma.** *Spine*

Hariri, O. n., Takayanagi, A. n., Lischalk, J. n., Desai, K. n., Florence, T. J., Yazdian, P. n., Chang, S. D., Vrionis, F. n., Adler, J. R., Quadri, S. A., Desai, A. n.
2019

● **Transoral Endoscopic Resection of High Cervical Osteophytes with Long-Term Symptom Resolution: Case Series, Imaging, and Literature Review** *WORLD NEUROSURGERY*

Jabarkheel, R., Chen, Y., Xu, L., Yan, C. H., Patel, Z. M., Desai, A. M.
2018; 120: 240–43

- **Trans-Oral Endoscopic Resection of High Cervical Osteophytes with Long-term Symptom Resolution: Case Series, Imaging, and Literature Review.** *World neurosurgery*
Jabarkheel, R., Chen, Y., Xu, L., Yan, C. H., Patel, Z. M., Desai, A. M.
2018
- **Anterior Techniques in Managing Cervical Disc Disease.** *Cureus*
Kim, L. H., D'Souza, M., Ho, A. L., Pendharkar, A. V., Sussman, E. S., Rezaii, P., Desai, A.
2018; 10 (8): e3146
- **Anterior Techniques in Managing Cervical Disc Disease** *CUREUS*
Kim, L. H., D'Souza, M., Ho, A. L., Pendharkar, A. V., Sussman, E. S., Rezaii, P., Desai, A.
2018; 10 (8)
- **Outpatient spine surgery: defining the outcomes, value, and barriers to implementation.** *Neurosurgical focus*
Pendharkar, A. V., Shahin, M. N., Ho, A. L., Sussman, E. S., Purger, D. A., Veeravagu, A., Ratliff, J. K., Desai, A. M.
2018; 44 (5): E11
- **Outpatient spine surgery: defining the outcomes, value, and barriers to implementation** *NEUROSURGICAL FOCUS*
Pendharkar, A., Shahin, M., Ho, A., Sussman, E., Purger, D., Veeravagu, A., Ratliff, J., Desai, A.
2018; 44 (5)
- **Propensity-matched comparison of outcomes and cost after macroscopic and microscopic lumbar discectomy using a national longitudinal database** *NEUROSURGICAL FOCUS*
Pendharkar, A., Rezaii, P., Ho, A., Sussman, E., Purger, D., Veeravagu, A., Ratliff, J., Desai, A.
2018; 44 (5)
- **Propensity-matched comparison of outcomes and cost after macroscopic and microscopic lumbar discectomy using a national longitudinal database.** *Neurosurgical focus*
Pendharkar, A. V., Rezaii, P. G., Ho, A. L., Sussman, E. S., Purger, D. A., Veeravagu, A., Ratliff, J. K., Desai, A. M.
2018; 44 (5): E12
- **Outpatient vs Inpatient Anterior Cervical Discectomy and Fusion: A Population-Level Analysis of Outcomes and Cost** *NEUROSURGERY*
Purger, D. A., Pendharkar, A. V., Ho, A. L., Sussman, E. S., Yang, L., Desai, M., Veeravagu, A., Ratliff, J. K., Desai, A.
2018; 82 (4): 454–63
- **Efficacy and safety of corpus callosotomy after vagal nerve stimulation in patients with drug-resistant epilepsy** *JOURNAL OF NEUROSURGERY*
Hong, J., Desai, A., Thadani, V. M., Roberts, D. W.
2018; 128 (1): 277–86
- **Preoperative depression, lumbar fusion, and opioid use: an assessment of postoperative prescription, quality, and economic outcomes.** *Neurosurgical focus*
O'Connell, C. n., Azad, T. D., Mittal, V. n., Vail, D. n., Johnson, E. n., Desai, A. n., Sun, E. n., Ratliff, J. K., Veeravagu, A. n.
2018; 44 (1): E5
- **Impact of Inpatient Venous Thromboembolism Continues After Discharge: Retrospective Propensity Scored Analysis in a Longitudinal Database** *CLINICAL SPINE SURGERY*
Li, A. Y., Azad, T. D., Veeravagu, A., Bhatti, I., Li, A., Cole, T., Desai, A., Ratliff, J. K.
2017; 30 (10): E1392–E1398
- **Spine Stereotactic Radiosurgery: Outcomes and Predictors of Local Recurrence**
Kumar, K. A., Fujimoto, D. K., White, E. C., Ho, C. K., Azoulay, M., Gibbs, I. C., Adler, J. R., Chang, S. D., Hancock, S. L., Desai, A., Ratliff, J., Soltys, S. G., Choi, et al
ELSEVIER SCIENCE INC.2017: E86
- **Stereotactic Radiosurgery for Benign Neurogenic Spinal Tumors**
Chin, A. L., Fujimoto, D. K., Tse, V., Chang, S. D., Adler, J. R., Gibbs, I. C., Dodd, R. L., Li, G., Gephart, M. H., Desai, A., Ratliff, J., Sachdev, S., Soltys, et al
ELSEVIER SCIENCE INC.2017: S186
- **Outpatient vs Inpatient Anterior Cervical Discectomy and Fusion: A Population-Level Analysis of Outcomes and Cost.** *Neurosurgery*
Purger, D. A., Pendharkar, A. V., Ho, A. L., Sussman, E. S., Yang, L., Desai, M., Veeravagu, A., Ratliff, J. K., Desai, A.
2017

- **Predicting complication risk in spine surgery: a prospective analysis of a novel risk assessment tool.** *Journal of neurosurgery. Spine*
Veeravagu, A., Li, A., Swinney, C., Tian, L., Moraff, A., Azad, T. D., Cheng, I., Alamin, T., Hu, S. S., Anderson, R. L., Shuer, L., Desai, A., Park, et al
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