Stanford



Atman Desai, MD

Clinical Professor, Neurosurgery

CLINICAL OFFICE (PRIMARY)

- **Stanford Neuroscience Health Center**
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ACADEMIC CONTACT INFORMATION

- **Administrative Assistant**
  Kelly Cocco - Administrative Assistant
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Bio

BIO

Dr. Atman Desai is a Professor of Neurosurgery and Director of Neurosurgical Spine Oncology at Stanford University. He specializes in the treatment of spine and spinal cord tumors, metastatic spine disease, and complex spinal reconstruction, including adult spinal deformity and scoliosis. His clinical practice integrates advanced imaging, navigation, and individualized surgical planning to achieve the safest and most effective outcomes for patients with challenging spinal conditions.

Dr. Desai received his medical degree from the University of Cambridge, completed his neurosurgery residency at Dartmouth-Hitchcock Medical Center, and pursued fellowship training in Spinal Oncology and Complex Spinal Reconstruction at Johns Hopkins Hospital.

His research spans artificial intelligence, radiomics, augmented reality, and wearable technology to improve diagnosis, surgical precision, and recovery after spine surgery. He also leads translational projects aimed at understanding tumor biology and identifying potential therapeutic targets in spinal metastases. His work includes the development of emerging surgical technologies and device innovations.

An active educator, collaborator, and invited speaker, Dr. Desai contributes broadly to the fields of spinal oncology and complex spine surgery through scholarly publications, multi-institutional research, and mentorship of future neurosurgeons and clinician-scientists.

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
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

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

- Member, Spinal Oncology Committee, North American Spine Society (2024 - present)
- Chair, Artificial Intelligence Task Force, North American Spine Society (2026 - present)
- Member, Digital Engagement Committee, American Association of Neurological Surgeons (2025 - present)
- Member, Continuing Medical Education Committee, American Association of Neurological Surgeons (2021 - present)
- Member, Stanford Cancer Institute (2016 - 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)

PROGRAM AFFILIATIONS

- SPARK at Stanford

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)

PATENTS

- Atman Desai, Vivek Sanker. "United States Patent 64/059,171 Cognera: Systems and Methods for Persistent Institutional Reasoning", Stanford University, May 6, 2026
- Jinendra Ekanayake, Atman Desai, Gary Steinberg. "United States Patent 64/010,803 Systems and Methods for Geometric Scaling-Based Optimization of Surgical Access Pathways Using Imaging-Derived Lesion Models", Stanford University, Mar 19, 2026
- Atman Desai. "United States Patent PCT/US2025/060844 DEVICES AND SYSTEMS FOR PLACING SURGICAL DRAINS AND METHODS FOR USING THEM", Stanford University, Dec 21, 2025

LINKS

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

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

The Stanford Spine Artificial Intelligence Laboratory advances spine care through artificial intelligence, computational imaging, digital surgery, and data-driven clinical research. Our work focuses on developing clinically meaningful technologies that improve diagnosis, guide surgical planning, and enhance outcomes for patients with complex spinal disease. We collaborate closely with the Stanford Center for Artificial Intelligence in Medicine and Imaging (AIMI), the Departments of Neurosurgery, Radiology, and Orthopedics, and partners across engineering, computer science, oncology, and molecular sciences.

A central theme of the lab is predictive modeling and clinical decision support in spine surgery. We develop machine learning frameworks that integrate clinical variables, imaging, and functional data to support personalized risk assessment, recovery trajectory estimation, and value-based care, with particular emphasis on spinal oncology and complex reconstruction.

Our research in computational imaging and radiomics explores how quantitative features extracted from spinal MRI and CT can improve disease characterization and surgical planning. This includes automated image analysis, segmentation, and multi-modal approaches to assess structural and biological properties of spinal pathology.

In spinal oncology, we apply AI-based methods to model tumor behavior, neurologic risk, surgical complexity, and treatment response in both metastatic and primary spinal tumors. By integrating multimodal data, we aim to refine risk stratification and support complex, multidisciplinary oncology care pathways.

The lab also conducts translational research in tumor biology, working with collaborators in oncology, pathology, and molecular imaging. These projects link biological markers with imaging and clinical features, examine the tumor microenvironment, and investigate pathways that may influence tumor behavior, bridging computational methods with emerging biological insights.

In digital surgery and intraoperative intelligence, we develop technologies to enhance precision, safety, and workflow in the operating room. Areas of focus include augmented and virtual reality, computer-vision–based intraoperative analytics, and tools that support real-time decision-making and surgeon ergonomics.

We further study real-world function and recovery using wearable sensors and smartphone-based data. This work enables objective measurement of mobility, posture, and functional recovery following spine interventions, and integrates longitudinal functional data into predictive models.

Across all projects, we emphasize large-scale data integration and collaborative analytics, leveraging institutional and multi-institutional datasets to build robust, generalizable models. The lab also contributes to early-stage technology innovation, including device concepts and workflow optimization tools, with the goal of translating impactful technologies into clinical practice.

Mission:

To advance intelligent, data-driven, and patient-centered solutions that transform the diagnosis, treatment, and long-term outcomes of patients with spinal disease.

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Vivek Sanker

Publications

PUBLICATIONS

- **Near-null gene-level association between the hypothalamic neural stem cell microRNA targetome and hypothalamic aging transcriptomes.** *GeroScience*
  Sanker, V., Constantinou, S., Desai, A., Frantzias, J.
  2026
- **An integrative meningioma surfaceome atlas and a transferable framework for CAR-T target nomination.** *Frontiers in bioinformatics*
  Sanker, V., Mahesh, D., Liverani, L., Abikenari, M. A., Li, Z., Zhang, Y., Theodros, D., Medikonda, R., Cavagnaro, M. J., Banu, M. A., Desai, A., Lim, M.
  2026; 6: 1919802
- **Novel Magnetic Resonance Imaging (MRI) Features Predicting Relapse After Clinical Remission in Pyogenic Spondylodiscitis: A Study Using Simultaneous ^{1}#F-Fluorodeoxyglucose Positron Emission Tomography/MRI Data.** *Neurospine*
  Jeon, S., Yang, H., Kong, E., Yu, D., Desai, A., Sanker, V., Song, Y. S., Jeon, I.
  2026; 23 (4): 1005-1021
- **The role of stereotactic radiosurgery for prostate cancer spine metastasis - impact on hormone sensitivity and treatment outcomes: a systematic review of literature.** *Neurosurgical review*
  Dravid, A., Sundaresh, S., Wang, D., Heesen, P., Sanker, V., Akhavan-Sigari, A., Cavagnaro, M. J., Singh, H., Ratliff, J., Desai, A.
  2026; 49 (1)
- **CX3CL1/CX3CR1 signaling in spinal metastasis: mechanisms and translational opportunities.** *Clinical & experimental metastasis*
  Sanker, V., Li, Z., Urdaneta, A., Dravid, A., Heesen, P., Frantzias, J., Cavagnaro, M. J., Ratliff, J., Mathews, I., Desai, A.
  2026; 43 (5)
- **Stereotactic radiosurgery for spinal cholangiocarcinoma metastases: Clinical outcomes and the role of biologically effective dose thresholds.** *Neurosurgical review*
  Cardona, J. J., Lam, F. C., Al Gharyani, M. F., Hori, Y. S., Abu-Reesh, D., Ustrzynski, L., Emrich, S. C., Tayag, A., Gu, X., Pollom, E. L., Soltys, S. G., Li, G., Desai, et al
  2026; 49 (1)
- **Tumor-specific outcomes in spinal metastases: a systematic review and meta-analysis.** *Journal of spine surgery (Hong Kong)*
  Sanker, V., Nordin, E. O., Ali, A. S., Gurumurthy, G. D., Thaller, A., Heesen, P., Li, Z., Liverani, L., Cavagnaro, M. J., Ratliff, J., Desai, A.
  2026; 12 (6): 91
- **Patterns of Muscle Health in Single- and Multi-Site Chronic Pain: A UK Biobank Normative Modeling Study.** *medRxiv : the preprint server for health sciences*
  Kaptan, M., Wang, Y., de Boer, A., Goyal, A., Holmes, S., Ozkan, K., Bédard, S., Indriolo, T., Law, C. S., Pfyffer, D., Fundaun, J., Berhe, E., Gold, et al

2026

- **3D Deep Learning for Brain Tumor Segmentation and Survival Prediction: A Comprehensive Multi-Modal Analysis Using the BraTS2020 Dataset.** *Journal of imaging*
  Sanker, V., Mahesh, D., Li, Z., Thaller, A., Heesen, P., Liverani, L., Wang, D., Cavagnaro, M. J., Medikonda, R. T., Prolo, L., Singh, H., Ratliff, J., Desai, et al
  2026; 12 (6)
- **Use of patient-specific 3D reconstruction models for en bloc resection of primary thoracic vertebral sarcomas without formal spondylectomy: illustrative cases.** *Journal of neurosurgery. Case lessons*
  Sanker, V., Dravid, A., Miller, R., Park, C., Cavagnaro, M. J., Jeon, I., Zygourakis, C., Desai, A.
  2026; 11 (21)
- **Robot-assisted excision of presacral ganglioneuroma: illustrative case.** *Journal of neurosurgery. Case lessons*
  Hariharan, S., Sanker, V., Park, C., Frantzias, J., Cavagnaro, M. J., Dawes, A. J., Desai, A.
  2026; 11 (17)
- **Stereotactic radiosurgery for NF2-related schwannomatosis and schwannomatosis-associated spinal tumors: a single-institution cohort.** *Journal of spine surgery (Hong Kong)*
  Sanker, V., Urdaneta, A., Kattaa, A. H., Li, Z., Miller, R., Park, C., Frantzias, J., Park, D. J., Chang, S. D., Desai, A.
  2026; 12 (4): 53
- **Arrested hydrocephalus and beyond: advances in the pathophysiology, diagnosis, and management of various forms of chronic hydrocephalus: a comprehensive narrative review.** *Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery*
  Sanker, V., Wahi, R., Jamal, S. M., Elnour, M. A., Venkatesan, A., Liverani, L., Lear, B. P., Cavagnaro, M. J., Desai, A., Prolo, L.
  2026; 42 (1)
- **From Pixels to Precision: Generative Artificial Intelligence as a Paradigm Shift in Spine Imaging-Technical Foundations, Clinical Applications, and the Path to Safe Clinical Deployment.** *Neurospine*
  Ashraf, D., Sanker, V., Liverani, L., Park, C., Medikonda, R. T., Cavagnaro, M. J., Jeon, I., Ratliff, J., Desai, A.
  2026; 23 (2): 293-313
- **Sacral chordomas: surgical management, reconstruction, and translational advances: a systematic review.** *Journal of spine surgery (Hong Kong)*
  Sanker, V., Ghaddar, S., Ali, A. S., Gurumurthy, G. D., Jayan, M., Sheikh, M. Q., Liverani, L., Sunil, G., Kumar, S., Cavagnaro, M. J., Medikonda, R., Ratliff, J., Desai, et al
  2026; 12 (3): 36
- **Thoracic corpectomy and vertebral body reconstruction (TCVBR): a systematic review and meta-analysis.** *European spine journal : official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society*
  Badary, A., Aziz El-Ramly, T., Kertam, A., Y Salama, E., Sanker, V., E Abomera, N., De la Garza Ramos, R., Atallah, O., Hernández-Hernández, A., Khalil Al-Barbarawi, M., Hong, B., Heesen, P., Catic, et al
  2026
- **Current Trends and Future Prospects of Radiomics and Machine Learning (ML) Models in Spinal Tumors-A Narrative Review.** *Journal of imaging*
  Sanker, V., Panchawgh, S., Kaur, A., Suresh, V., Mahesh, D., Ahmad, E., Hariharan, S., Pangal, D., Cavgnaro, M. J., Rusu, M., Ratliff, J., Desai, A.
  2026; 12 (3)
- **Stereotactic radiosurgery (SRS) for primary intradural spinal tumors: A systematic review and meta-analysis.** *Neurosurgical review*
  Nordin, E. O., Sanker, V., Heesen, P., Hariharan, S., Ciobanu-Caraus, O., Cavagnaro, M. J., Jeon, I., Park, D., Chang, S., Ratliff, J. K., Desai, A.
  2026; 49 (1)
- **Sacral chordomas: surgical management, reconstruction, and translational advances: a systematic review** *JOURNAL OF SPINE SURGERY*
  Sanker, V., Ghaddar, S., Ali, A., Gurumurthy, G. D., Jayan, M., Sheikh, M., Liverani, L., Sunil, G., Kumar, S., Cavagnaro, M., Medikonda, R., Ratliff, J., Desai, et al
  2026
- **Artificial intelligence models in the surgical planning of low-grade gliomas: a systematic review** *FRONTIERS IN ONCOLOGY*
  Sanker, V., Venkatesan, A., Salma, A., Sp, A., Li, Z., Heesen, P., Park, C., Park, D. J., Desai, A.
  2026; 15

- **Predicting Postoperative Discharge Status and Readmissions in Spinal Metastatic Disease Using Machine Learning Models.** *Journal of neurological surgery. Part A, Central European neurosurgery*
  Chintapalli, R., Heesen, P., Desai, A.
  2025
- **Stereotactic radiosurgery (SRS) for primary spinal bone tumors: a systematic review and meta-analysis.** *Neurosurgical review*
  Nordin, E. O., Sanker, V., Heesen, P., Dravid, A., Hariharan, S., Ciobanu-Caraus, O., Cavagnaro, M. J., Jeon, I., Park, D., Chang, S., Ratliff, J. K., Desai, A.
  2025; 48 (1): 760
- **Effect of Postoperative Nonsteroidal Anti-Inflammatory Drug Use on Surgical Outcomes in Multi- and Single-Level Posterior Cervical Fusions.** *Spine surgery and related research*
  D Gonzalez-Suarez, A., Green, A., José Cavagnaro, M., Moya, E., Zygourakis, C., M Desai, A.
  2025; 9 (5): 498-508
- **Current trends and future prospects of language models and processing systems in spine surgery - a scoping review.** *Neurosurgical review*
  Sanker, V., Nordin, E. O., Heesen, P., Elfadali, M. A., Anwar, M., Chintapalli, R. D., Cavagnaro, M. J., Zygourakis, C. C., Ratliff, J. K., Desai, A. M.
  2025; 48 (1): 633
- **Cost-effectiveness of Surgery for Spinal Metastasis: A Systematic Review.** *Spine*
  Heesen, P., Nordin, E. O., Sanker, V., Cavagnaro, M. J., Zygourakis, C. C., Ratliff, J., Desai, A. M.
  2025
- **Applications and Performance of Artificial Intelligence in Spinal Metastasis Imaging: A Systematic Review.** *Journal of clinical medicine*
  Sanker, V., Gowda, P., Thaller, A., Li, Z., Heesen, P., Qiang, Z., Hariharan, S., Nordin, E. O., Cavagnaro, M. J., Ratliff, J., Desai, A.
  2025; 14 (16)
- **Artificial Intelligence Models for Predicting Outcomes in Spinal Metastasis: A Systematic Review and Meta-Analysis.** *Journal of clinical medicine*
  Sanker, V., Dawer, P., Thaller, A., Li, Z., Heesen, P., Hariharan, S., Nordin, E. O., Cavagnaro, M. J., Ratliff, J., Desai, A.
  2025; 14 (16)
- **Quantitative radiomic analysis of computed tomography scans using machine and deep learning techniques accurately predicts histological subtypes of non-small cell lung cancer: A retrospective analysis.** *European journal of surgical oncology : the journal of the European Society of Surgical Oncology and the British Association of Surgical Oncology*
  Panchawagh, S., Halder, A., Haldule, S., Sanker, V., Lalwani, D., Sequeria, R., Naik, H., Desai, A.
  2025; 51 (10): 110376
- **Artificial Intelligence for Non-Invasive Prediction of Molecular Signatures in Spinal Metastases: A Systematic Review.** *Bioengineering (Basel, Switzerland)*
  Sanker, V., Sanikommu, S., Thaller, A., Li, Z., Heesen, P., Hariharan, S., Nordin, E. O., Cavagnaro, M. J., Ratliff, J., Desai, A.
  2025; 12 (8)
- **Cross-modality image-to-image translation from MR to synthetic 18F-FDOPA PET/MR fusion images using conditional GAN in brain cancer.** *Neuroradiology*
  Seo, Y., Yang, H., Kong, E., Sanker, V., Desai, A., Lee, J., Park, S. H., Song, Y. S., Jeon, I.
  2025
- **Exoscope-Assisted Spine Surgery: A Systematic Review From Basic to Complex Pathologies.** *Cureus*
  Sanker, V., Dv, V. K., Dawer, P., Dave, T., Banjan, T., Kattaa, A. H., Cavagnaro, M. J., Park, D. J., Chang, S. D., Zygourakis, C. C., Desai, A., Singh, H.
  2025; 17 (7): e88450
- **Comparative Analysis Between Cortical Bone Trajectory (CBT) Screw Fixation and Traditional Pedicle Screw Fixation in Lumbar Spine Surgery: A Systematic Review and Meta-Analysis.** *Cureus*
  Sanker, V., Badary, A., Asad, A., Buccilli, B., Kattaa, A. H., Park, D. J., Chang, S. D., Desai, A., Singh, H.
  2025; 17 (7): e87944
- **Vertebral fracture following primary stereotactic body radiation therapy for spinal bone metastases: a decade of experience.** *Journal of neurosurgery. Spine*

Chou, K. N., Park, D. J., Sanker, V., Ye, X., Hori, Y. S., Persad, A. R., Chuang, C., Emrich, S. C., Ustrzynski, L. P., Tayag, A., Kumar, K. A., Usoz, M., Mendoza, et al
2025: 1-11

- **Patient-specific 3D reconstruction models for sacral tumor resection: illustrative cases.** *Journal of neurosurgery. Case lessons*
  Sanker, V., Gonzalez-Suarez, A. D., Innocenti, N., Cavagnaro, M. J., Jeon, I., Zygourakis, C., Desai, A.
  2025; 9 (23)
- **Frequency of Diffuse Axonal Injury and Its Outcomes in Severe Traumatic Brain Injury (sTBI): A Systematic Review and Meta-Analysis.** *Journal of neurotrauma*
  Sanker, V., Nordin, E. O., Heesen, P., Satish, P., Salman, A., Dondapati, V. V., Levinson, S., Desai, A., Singh, H.
  2025
- **Development and Validation of Machine Learning Algorithms for Predicting Prolonged Postoperative Opioid Use in Spinal Metastatic Disease.** *The American journal of hospice & palliative care*
  Chintapalli, R., Heesen, P., Desai, A.
  2025: 10499091251341450
- **Racial, Ethnic and Language-Related Disparities in Palliative Care Utilization in Spinal Metastatic Disease.** *The American journal of hospice & palliative care*
  Chintapalli, R., Fernando Viegas de Moraes Leme, L., Desai, A.
  2025: 10499091251333076
- **Association Between Nonsteroidal Anti-inflammatory Drugs Use and Surgical Outcomes Following Posterior Lumbar Fusion: A Medical Claims Database Analysis.** *International journal of spine surgery*
  Gonzalez-Suarez, A. D., Green, A., Cavagnaro, M. J., Moya, E., Zygourakis, C., Desai, A. M.
  2025
- **Use of Carbon Fiber Implants to Improve the Safety and Efficacy of Radiation Therapy for Spine Tumor Patients.** *Brain sciences*
  Lam, F. C., Guru, S., AbuReesh, D., Hori, Y. S., Chuang, C., Liu, L., Wang, L., Gu, X., Szalkowski, G. A., Wang, Z., Wohlers, C., Tayag, A., Emrich, et al
  2025; 15 (2)
- **Achondroplasia Status and Adverse Short-Term Postoperative Outcomes in Elective Spinal Decompression Surgery: A Propensity Score-Matched Case-Control Study.** *Journal of clinical neuroscience : official journal of the Neurosurgical Society of Australasia*
  Chintapalli, R., Desai, A.
  2025; 134: 111064
- **Artificial intelligence models in the surgical planning of low-grade gliomas: a systematic review.** *Frontiers in oncology*
  Sanker, V., Venkatesan, A., Salma, A., Sp, A., Li, Z., Heesen, P., Park, C., Park, D. J., Desai, A.
  2025; 15: 1672289
- **Efficacy of Additional Surgical Decompression on Functional Outcome in Pyogenic Spinal Epidural Abscess With No Neurological Deficit.** *Korean journal of neurotrauma*
  Kim, M. S., Desai, A., Yu, D., Sanker, V., Kim, S. W., Jeon, I.
  2024; 20 (4): 276-288
- **Determining critical monitoring periods for accurate wearable step counts in patients with degenerative spine disorders.** *Scientific reports*
  Gonzalez-Suarez, A. D., Maldaner, N., Tang, M., Fatemi, P., Leung, C., Desai, A., Tomkins-Lane, C., Han, S. S., Zygourakis, C.
  2024; 14 (1): 19988
- **Mismatch Between Pelvic Incidence and Lumbar Lordosis After Personalized Interbody Fusion: The Importance of Preoperative Planning and Alignment in Degenerative Spine Diseases.** *International journal of spine surgery*
  Asghar, J., Patel, A. I., Osorio, J. A., Smith, J. S., Small, J., Mullin, J. P., Desai, A., Temple-Wong, M., Nicolau, R. J.
  2024
- **Changes in Alignment at Untreated Vertebral Levels Following Short-Segment Fusion Using Personalized Interbody Cages: Leveraging Personalized Medicine to Reduce the Risk of Reoperation.** *International journal of spine surgery*
  Mullin, J. P., Asghar, J., Patel, A. I., Osorio, J. A., Smith, J. S., Ames, C. P., Small, J., Desai, A., Ponticorvo, A., Nicolau, R. J.
  2024

- **Using Machine Learning Models to Identify Factors Associated With 30-Day Readmissions After Posterior Cervical Fusions: A Longitudinal Cohort Study.** *Neurospine*
  Gonzalez-Suarez, A. D., Rezaii, P. G., Herrick, D., Tigchelaar, S. S., Ratliff, J. K., Rusu, M., Scheinker, D., Jeon, I., Desai, A. M.
  2024
- **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
- **Automated Labeling of Spondylolisthesis Cases through Spinal MRI Radiology Report Interpretation using ChatGPT**
  Moallem, G., Gonzalez, A., Desai, A., Rusu, M.
  edited by Chen, W., Astley, S. M.
  SPIE-INT SOC OPTICAL ENGINEERING.2024
- **Patient perspectives on AI: a pilot study comparing large language model and physician-generated responses to routine cervical spine surgery questions** *Artificial Intelligence Surgery*
  Yoseph, E. T., Gonzalez-Suarez, A. D., Lang, S., Desai, A., Hu, S. S., Zygourakis, C. C.
  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., Barbery, D., Bobrow, A., Kin, C., Louis, R., Desai, A.
  2022
- **Health Care Resource Utilization in Management of Opioid-Naive 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, 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
  2017: 1-11
- **The effect of socioeconomic status on gross total resection, radiation therapy and overall survival in patients with gliomas.** *Journal of neuro-oncology*
  Deb, S., Pendharkar, A. V., Schoen, M. K., Altekruse, S., Ratliff, J., Desai, A.
  2017
- **Cervical Osteochondroma Causing Myelopathy in Adults: Management Considerations and Literature Review** *WORLD NEUROSURGERY*
  Veeravagu, A., Li, A., Shuer, L. M., Desai, A. M.
  2017; 97
- **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.
  2016: -?
- **Surgical outcomes of cervical spondylotic myelopathy: an analysis of a national, administrative, longitudinal database.** *Neurosurgical focus*
  Veeravagu, A., Connolly, I. D., Lamsam, L., Li, A., Swinney, C., Azad, T. D., Desai, A., Ratliff, J. K.
  2016; 40 (6): E11-?
- **Cervical Fusion for Absent Pedicle Syndrome Manifesting with Myelopathy** *WORLD NEUROSURGERY*
  Goodwin, C. R., Desai, A., Khattab, M. H., Elder, B. D., Bydon, A., Wolinsky, J.
  2016; 86
- **Epidural spinal involvement of Erdheim-Chester disease causing myelopathy** *JOURNAL OF CLINICAL NEUROSCIENCE*
  Hwang, B. Y., Liu, A., Kern, J., Goodwin, C. R., Wolinsky, J. P., Desai, A.
  2015; 22 (9): 1532-1536
- **Surgical Management of Sacral Chordomas: Illustrative Cases and Current Management Paradigms** *CUREUS*
  Pendharkar, A. V., Ho, A. L., Sussman, E. S., Desai, A.
  2015; 7 (8)
- **Anterior Versus Posterior Approach for Multilevel Degenerative Cervical Disease A Retrospective Propensity Score-Matched Study of the MarketScan Database** *SPINE*
  Cole, T., Veeravagu, A., Zhang, M., Azad, T. D., Desai, A., Ratliff, J. K.
  2015; 40 (13): 1033-1038
- **SPORT: Does Incidental Durotomy Affect Longterm Outcomes in Cases of Spinal Stenosis?** *Neurosurgery*
  Desai, A., Ball, P. A., Bekelis, K., Lurie, J., Mirza, S. K., Tosteson, T. D., Weinstein, J. N.
  2015; 76: S57-63
- **Surgical Management of Sacral Chordomas: Illustrative Cases and Current Management Paradigms.** *Cure¯us*
  Pendharkar, A. V., Ho, A. L., Sussman, E. S., Desai, A.

2015; 7 (8)

- **Utility of Routine Outpatient Cervical Spine Imaging Following Anterior Cervical Corpectomy and Fusion.** *Cure¯us*
  Desai, A., Pendharkar, A. V., Swienckowski, J. G., Ball, P. A., Lollis, S., Simmons, N. E.
  2015; 7 (11)
- **Utility of Provocative Discography** *WORLD NEUROSURGERY*
  Gokaslan, Z. L., Desai, A.
  2014; 82 (5): 638-639
- **Outpatient follow-up of nonoperative cerebral contusion and traumatic subarachnoid hemorrhage: does repeat head CT alter clinical decision-making?** *JOURNAL OF NEUROSURGERY*
  Rubino, S., Zaman, R. A., Sturge, C. R., Fried, J. G., Desai, A., Simmons, N. E., Lollis, S. S.
  2014; 121 (4): 944-949
- **Incidence of Sacral Fractures and In-Hospital Postoperative Complications in the United States An Analysis of 2002-2011 Data** *SPINE*
  Bydon, M., De la Garza-Ramos, R., Macki, M., Desai, A., Gokaslan, A. K., Bydon, A.
  2014; 39 (18): E1103-E1109
- **A predictive model of complications after spine surgery: the National Surgical Quality Improvement Program (NSQIP) 2005-2010** *SPINE JOURNAL*
  Bekelis, K., Desai, A., Bakhoum, S. F., Missios, S.
  2014; 14 (7): 1247-1255
- **Predicting inpatient complications from cerebral aneurysm clipping: the Nationwide Inpatient Sample 2005-2009** *JOURNAL OF NEUROSURGERY*
  Bekelis, K., Missios, S., MacKenzie, T. A., Desai, A., Fischer, A., Labropoulos, N., Roberts, D. W.
  2014; 120 (3): 591-598
- **Outcome prediction in intracranial tumor surgery: the National Surgical Quality Improvement Program 2005-2010** *JOURNAL OF NEURO-ONCOLOGY*
  Bekelis, K., Bakhoum, S. F., Desai, A., MacKenzie, T. A., Roberts, D. W.
  2013; 113 (1): 57-64
- **Variation in Outcomes Across Centers After Surgery for Lumbar Stenosis and Degenerative Spondylolisthesis in the Spine Patient Outcomes Research Trial** *SPINE*
  Desai, A., Bekelis, K., Ball, P. A., Lurie, J., Mirza, S. K., Tosteson, T. D., Zhao, W., Weinstein, J. N.
  2013; 38 (8): 678-691
- **A Risk Factor-based Predictive Model of Outcomes in Carotid Endarterectomy The National Surgical Quality Improvement Program 2005-2010** *STROKE*
  Bekelis, K., Bakhoum, S. F., Desai, A., MacKenzie, T. A., Goodney, P., Labropoulos, N.
  2013; 44 (4): 1085-?
- **Indications for treatment of recurrent carotid stenosis** *BRITISH JOURNAL OF SURGERY*
  Bekelis, K., Moses, Z., Missios, S., Desai, A., Labropoulos, N.
  2013; 100 (4): 440-447
- **Association of a higher density of specialist neuroscience providers with fewer deaths from stroke in the United States population** *JOURNAL OF NEUROSURGERY*
  Desai, A., Bekelis, K., Zhao, W., Ball, P. A., Erkmen, K.
  2013; 118 (2): 431-436
- **Occipitotemporal hippocampal depth electrodes in intracranial epilepsy monitoring: safety and utility** *JOURNAL OF NEUROSURGERY*
  Bekelis, K., Desai, A., Kotlyar, A., Thadani, V., Jobst, B. C., Bujarski, K., Darcey, T. M., Roberts, D. W.
  2013; 118 (2): 345-352
- **Interictal PET and ictal subtraction SPECT: Sensitivity in the detection of seizure foci in patients with medically intractable epilepsy** *EPILEPSIA*
  Desai, A., Bekelis, K., Thadani, V. M., Roberts, D. W., Jobst, B. C., Duhaime, A., Gilbert, K., Darcey, T. M., Studholme, C., Siegel, A.
  2013; 54 (2): 341-350

- **Subdural interhemispheric grid electrodes for intracranial epilepsy monitoring: feasibility, safety, and utility Clinical article** *JOURNAL OF NEUROSURGERY*
  Bekelis, K., Radwan, T. A., Desai, A., Moses, Z. B., Thadani, V. M., Jobst, B. C., Bujarski, K. A., Darcey, T. M., Roberts, D. W.
  2012; 117 (6): 1182-1188
- **Spine Patient Outcomes Research Trial: Do Outcomes Vary Across Centers for Surgery for Lumbar Disc Herniation?** *NEUROSURGERY*
  Desai, A., Bekelis, K., Ball, P. A., Lurie, J., Mirza, S. K., Tosteson, T. D., Zhao, W., Weinstein, J. N.
  2012; 71 (4): 833-842
- **Computed tomography angiography: improving diagnostic yield and cost effectiveness in the initial evaluation of spontaneous nonsubarachnoid intracerebral hemorrhage** *JOURNAL OF NEUROSURGERY*
  Bekelis, K., Desai, A., Zhao, W., Gibson, D., Gologorsky, D., Eskey, C., Erkmen, K.
  2012; 117 (4): 761-766
- **Increased population density of neurosurgeons associated with decreased risk of death from motor vehicle accidents in the United States.** *Journal of neurosurgery*
  Desai, A., Bekelis, K., Zhao, W., Ball, P. A.
  2012; 117 (3): 599-603
- **Minimally invasive tubular retractor system for adequate exposure during surgical obliteration of spinal dural arteriovenous fistulas with the aid of indocyanine green intraoperative angiography.** *Journal of neurosurgery. Spine*
  Desai, A., Bekelis, K., Erkmen, K.
  2012; 17 (2): 160-163
- **Frameless robotically targeted stereotactic brain biopsy: feasibility, diagnostic yield, and safety** *JOURNAL OF NEUROSURGERY*
  Bekelis, K., Badwan, T. A., Desai, A., Roberts, D. W.
  2012; 116 (5): 1002-1006
- **Magnetic resonance imaging/magnetic resonance angiography fusion technique for intraoperative navigation during microsurgical resection of cerebral arteriovenous malformations** *NEUROSURGICAL FOCUS*
  Bekelis, K., Missios, S., Desai, A., Eskey, C., Erkmen, K.
  2012; 32 (5)
- **Surgery for Lumbar Degenerative Spondylolisthesis in Spine Patient Outcomes Research Trial** *SPINE*
  Desai, A., Ball, P. A., Bekelis, K., Lurie, J., Mirza, S. K., Tosteson, T. D., Zhao, W., Weinstein, J. N.
  2012; 37 (5): 406-413
- **Surgical techniques for investigating the role of the insula in epilepsy: a review** *NEUROSURGICAL FOCUS*
  Desai, A., Bekelis, K., Darcey, T. M., Roberts, D. W.
  2012; 32 (3)
- **SPORT: Does Incidental Durotomy Affect Long-term Outcomes in Cases of Spinal Stenosis?** *NEUROSURGERY*
  Desai, A., Ball, P. A., Bekelis, K., Lurie, J., Mirza, S. K., Tosteson, T. D., Weinstein, J. N.
  2011; 69 (1): 38-44
- **Outcomes after incidental durotomy during first-time lumbar discectomy** *JOURNAL OF NEUROSURGERY-SPINE*
  Desai, A., Ball, P. A., Bekelis, K., Lurie, J. D., Mirza, S. K., Tosteson, T. D., Weinstein, J. N.
  2011; 14 (5): 647-653
- **Stereotactic depth electrode investigation of the insula in the evaluation of medically intractable epilepsy** *JOURNAL OF NEUROSURGERY*
  Desai, A., Jobst, B. C., Thadani, V. M., Bujarski, K. A., Gilbert, K., Darcey, T. M., Roberts, D. W.
  2011; 114 (4): 1176-1186
- **Akathisia after mild traumatic head injury Case report** *JOURNAL OF NEUROSURGERY-PEDIATRICS*
  Desai, A., Nierenberg, D. W., Duhaime, A.
  2010; 5 (5): 460-464
- **How long should cerebrospinal fluid cultures be held to detect shunt infections?** *JOURNAL OF NEUROSURGERY-PEDIATRICS*
  Desai, A., Lollis, S. S., Missios, S., Radwan, T., Zuaro, D. E., Schwarzman, J. D., Duhaime, A.
  2009; 4 (2): 184-189

- **Hepatology outpatient service provision in secondary care: a study of liver disease incidence and resource costs** *CLINICAL MEDICINE*
  Whalley, S., Puvanachandra, P., Desai, A., Kennedy, H.
  2007; 7 (2): 119-124
- **Can Asperger syndrome be diagnosed at 26 months old? A genetic high-risk single-case study** *JOURNAL OF CHILD NEUROLOGY*
  Baron-Cohen, S., Scott, F., Wheelwright, S., Johnson, M., Bisarya, D., Desai, A., Ahluwalia, J.
  2006; 21 (4): 351-356
- **Dissociable aspects of performance on the 5-choice serial reaction time task following lesions of the dorsal anterior cingulate, infralimbic and orbitofrontal cortex in the rat: differential effects on selectivity, impulsivity and compulsivity** *BEHAVIOURAL BRAIN RESEARCH*
  Chudasama, Y., Passetti, F., Rhodes, S. E., Lopian, D., Desai, A., Robbins, T. W.
  2003; 146 (1-2): 105-119