

# Muhammad M Abd-el-barr

## List of Publications by Year in descending order

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92  
papers

1,782  
citations

277466

22  
h-index

307960

37  
g-index

103  
all docs

103  
docs citations

103  
times ranked

2705  
citing authors

#	ARTICLE	IF	CITATIONS
1	Using Novel Segmentation Technology to Define Safe Corridors for Minimally Invasive Posterior Lumbar Interbody Fusion. <i>Operative Neurosurgery</i> , 2024, 27, 14-22.	1.0	3
2	Advancing Prone-Transpsoas Spine Surgery: A Narrative Review and Evolution of Indications with Representative Cases. <i>Journal of Clinical Medicine</i> , 2024, 13, 1112.	2.5	0
3	Using Augmented Reality Technology to Optimize Transfacet Lumbar Interbody Fusion: A Case Report. <i>Journal of Clinical Medicine</i> , 2024, 13, 1513.	2.5	2
4	Evolution of Cervical Endoscopic Spine Surgery: Current Progress and Future Directionsâ€”A Narrative Review. <i>Journal of Clinical Medicine</i> , 2024, 13, 2122.	2.5	0
5	Evolution of the Transforaminal Lumbar Interbody Fusion (TLIF): From Open to Percutaneous to Patient-Specific. <i>Journal of Clinical Medicine</i> , 2024, 13, 2271.	2.5	1
6	Early Experience with Prone Lateral Interbody Fusion in Deformity Correction: A Single-Institution Experience. <i>Journal of Clinical Medicine</i> , 2024, 13, 2279.	2.5	0
7	Pushing the Limits of Minimally Invasive Spine Surgeryâ€”From Preoperative to Intraoperative to Postoperative Management. <i>Journal of Clinical Medicine</i> , 2024, 13, 2410.	2.5	0
8	Comparison of Intraoperative and Postoperative Outcomes Between Open, Wiltse, and Percutaneous Approach to Traumatic Thoracolumbar Spine Fractures Without Neurological Injury: A Systematic Review and Meta-Analysis. <i>North American Spine Society Journal (NASSJ)</i> , 2024, , 100547.	0.6	0
9	Machine learning in the diagnosis, management, and care of patients with low back pain: a scoping review of the literature and future directions. <i>Spine Journal</i> , 2024, , .	1.3	0
10	Robot-assisted versus conventional percutaneous sacroiliac screw fixation for posterior pelvic ring injuries: a systematic review and meta-analysis. <i>European Journal of Orthopaedic Surgery and Traumatology</i> , 2023, 33, 9-20.	1.5	13
11	A Comparison of Percutaneous Pedicle Screw Accuracy Between Robotic Navigation and Novel Fluoroscopy-Based Instrument Tracking for Patients Undergoing Instrumented Thoracolumbar Surgery. <i>World Neurosurgery</i> , 2023, 172, e389-e395.	1.5	3
12	Novel Merging of CT and MRI to Allow for Safe Navigation into Kambin's Triangle for Percutaneous Lumbar Interbody Fusionâ€”Initial Case Series Investigating Safety and Efficacy. <i>Operative Neurosurgery</i> , 2023, 24, 331-340.	1.0	8
13	Robotic-Assisted Minimally Invasive Spinopelvic Fixation for Traumatic Sacral Fractures: Case Series Investigating Early Safety and Efficacy. <i>World Neurosurgery</i> , 2023, 177, e186-e196.	1.5	1
14	Novel Approach to Percutaneous Lumbar Surgeries via Kambin's Triangleâ€”Radiographic and Surgical Planning Analysis with Nerve Segmentation Technology. <i>World Neurosurgery</i> , 2023, 177, e385-e396.	1.5	6
15	Clinical and Radiographic Outcomes for Patients with Cervical Adjacent Segment Disease Treated with Anterior Cervical Discectomy and Fusion with Integrated Interbody Spacers. <i>World Neurosurgery</i> , 2023, 180, e514-e522.	1.5	0
16	Single-position prone transpsoas fusion for the treatment of lumbar adjacent segment disease: early experience of twenty-four cases across three tertiary medical centers. <i>European Spine Journal</i> , 2022, 31, 2255-2261.	2.3	2
17	Perioperative outcomes of general versus spinal anesthesia in the lumbar spine surgery population: A systematic review and meta-analysis of data from 2005 through 2021. <i>Journal of Clinical Orthopaedics and Trauma</i> , 2022, 30, 101923.	1.5	4
18	Effect of Acute Physical Interventions on Pathophysiology and Recovery After Spinal Cord Injury: A Comprehensive Review of the Literature. <i>Neurospine</i> , 2022, 19, 671-686.	3.0	6

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19	Surgical Considerations to Improve Recovery in Acute Spinal Cord Injury. <i>Neurospine</i> , 2022, 19, 689-702.	3.0	8
20	Biomechanics, evaluation, and management of subaxial cervical spine injuries: A comprehensive review of the literature. <i>Journal of Clinical Neuroscience</i> , 2021, 83, 131-139.	1.6	8
21	“The eye sees only what the mind is prepared to comprehend” Unrecognized incidental findings on intraoperative computed tomography during spine instrumentation surgery. <i>Clinical Imaging</i> , 2021, 72, 64-69.	1.6	1
22	Hematocrit as a predictor of preoperative transfusion-associated complications in spine surgery: A NSQIP study. <i>Clinical Neurology and Neurosurgery</i> , 2021, 200, 106322.	1.4	5
23	Prevention of Proximal Junctional Kyphosis or Failure: Soft Landings and Tension Band Augmentation. <i>Techniques in Orthopaedics</i> , 2021, 36, 30-34.	0.2	2
24	Gender disparities in clinical presentation, treatment, and outcomes in metastatic spine disease. <i>Cancer Epidemiology</i> , 2021, 70, 101856.	2.1	9
25	Preoperative optimization for patients undergoing elective spine surgery. <i>Clinical Neurology and Neurosurgery</i> , 2021, 202, 106445.	1.4	8
26	Impact of US hospital center and interhospital transfer on spinal cord injury management: An analysis of the National Trauma Data Bank. <i>Journal of Trauma and Acute Care Surgery</i> , 2021, 90, 1067-1076.	2.2	9
27	Robotic-assisted percutaneous iliac screw fixation for destructive lumbosacral metastatic lesions: an early single-institution experience. <i>Acta Neurochirurgica</i> , 2021, 163, 2983-2990.	1.7	7
28	Operative time and learning curve between fluoroscopy-based instrument tracking and robot-assisted instrumentation for patients undergoing minimally invasive transforaminal lumbar interbody fusion (MIS-TLIF). <i>Clinical Neurology and Neurosurgery</i> , 2021, 206, 106698.	1.4	19
29	Generating artificial sensations with spinal cord stimulation in primates and rodents. <i>Brain Stimulation</i> , 2021, 14, 825-836.	1.6	13
30	A Prospective Comparison of the Effects of Instrument Tracking on Time and Radiation During Minimally Invasive Lumbar Interbody Fusion. <i>World Neurosurgery</i> , 2021, 152, e101-e111.	1.5	9
31	Risk factors for prolonged length of stay in patients undergoing surgery for intramedullary spinal cord tumors. <i>Journal of Clinical Neuroscience</i> , 2021, 91, 396-401.	1.6	8
32	Robotic-Assisted Trajectory Into Kambin's Triangle During Percutaneous Transforaminal Lumbar Interbody Fusion—Initial Case Series Investigating Safety and Efficacy. <i>Operative Neurosurgery</i> , 2021, 21, 400-408.	1.0	14
33	Robotic navigation in spine surgery: Where are we now and where are we going?. <i>Journal of Clinical Neuroscience</i> , 2021, 94, 298-304.	1.6	15
34	Percutaneous Lumbar Interbody Fusion With an Expandable Titanium Cage Through Kambin's Triangle: A Case Series With Initial Clinical and Radiographic Results. <i>International Journal of Spine Surgery</i> , 2021, 15, 1133-1141.	1.5	19
35	Management of Acute Traumatic Spinal Cord Injury: A Review of the Literature. <i>Frontiers in Surgery</i> , 2021, 8, 698736.	1.5	48
36	Spinal cord stimulation and rehabilitation in an individual with chronic complete L1 paraplegia due to a conus medullaris injury: motor and functional outcomes at 18 months. <i>Spinal Cord Series and Cases</i> , 2020, 6, 96.	0.6	7

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37	P36. Operative time and learning curve between conventional fluoroscopy, fluoroscopy-based instrument navigation, and robot-assisted instrumentation in minimally invasive transforaminal lumbar interbody fusion (MIS-TLIF). <i>Spine Journal</i> , 2020, 20, S163-S164.	1.3	1
38	Awake percutaneous transforaminal lumbar interbody fusion with expandable cage and robotic-assisted navigation and instrumentation: Case report and review of literature. <i>Interdisciplinary Neurosurgery: Advanced Techniques and Case Management</i> , 2020, 20, 100685.	0.3	6
39	Improved Dysphagia Outcomes in Anchored Spacers Versus Plate-Screw Systems in Anterior Cervical Discectomy and Fusion: A Systematic Review. <i>Global Spine Journal</i> , 2020, 10, 1057-1065.	2.6	7
40	Effect of Instrument Navigation on C-arm Radiation and Time during Spinal Procedures: A Clinical Evaluation. <i>International Journal of Spine Surgery</i> , 2020, 14, 375-381.	1.5	9
41	A Smartphone App With a Digital Care Pathway for Patients Undergoing Spine Surgery: Development and Feasibility Study. <i>JMIR Perioperative Medicine</i> , 2020, 3, e21138.	1.0	17
42	Independent Associations With 30- and 90-Day Unplanned Readmissions After Elective Lumbar Spine Surgery: A National Trend Analysis of 144,123 Patients. <i>Neurosurgery</i> , 2019, 84, 758-767.	1.2	24
43	Crossing the Cervicothoracic Junction in Posterior Cervical Decompression and Fusion: A Cohort Analysis. <i>World Neurosurgery</i> , 2019, 131, e514-e520.	1.5	26
44	Erratum to intraoperative ketamine may increase risk of post-operative delirium after complex spinal fusion for adult deformity correction. <i>Journal of Spine Surgery</i> , 2019, 5, 392-392.	1.2	0
45	Importance of Spinal Alignment in Primary and Metastatic Spine Tumors. <i>World Neurosurgery</i> , 2019, 132, 118-128.	1.5	4
46	Utility of Cervical Collars Following Cervical Fusion Surgery. Does It Improve Fusion Rates or Outcomes? A Systematic Review. <i>World Neurosurgery</i> , 2019, 124, 423-429.	1.5	9
47	Computer-Assisted Instrument Navigation Versus Conventional C-Arm Fluoroscopy for Surgical Instrumentation: Accuracy, Radiation Time, and Radiation Exposure. <i>American Journal of Roentgenology</i> , 2019, 213, 651-658.	2.8	12
48	Intraoperative ketamine may increase risk of post-operative delirium after complex spinal fusion for adult deformity correction. <i>Journal of Spine Surgery</i> , 2019, 5, 79-87.	1.2	13
49	Neurosurgical complications: what the radiologist needs to know. <i>Emergency Radiology</i> , 2019, 26, 331-340.	1.9	4
50	Vascular Complications in Cervical Spine Surgery (Anterior and Posterior Approach). , 2019, , 314-319.		2
51	Spinal cord astrocytomas: progresses in experimental and clinical investigations for developing recovery neurobiology-based novel therapies. <i>Experimental Neurology</i> , 2019, 311, 135-147.	4.1	17
52	Total en bloc resection of primary and metastatic spine tumors. <i>Annals of Translational Medicine</i> , 2019, 7, 226-226.	1.7	36
53	Recent advances in intradural spinal tumors. <i>Neuro-Oncology</i> , 2018, 20, 729-742.	1.2	40
54	Impact of frailty on complications in patients with thoracic and thoracolumbar spinal fracture. <i>Clinical Neurology and Neurosurgery</i> , 2018, 169, 161-165.	1.4	24

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55	156 Independent Associations With 30- and 90-Day Unplanned Readmissions After Elective Lumbar Spine Surgery. <i>Neurosurgery</i> , 2018, 65, 100.	1.2	2
56	161 Association Between Preoperative Narcotic Use With Surgical Outcomes, Patient Reported Pain Scores and Ambulatory Status After Complex Spinal Fusion (â%¥5 Levels) for Adult Deformity Correction. <i>Neurosurgery</i> , 2018, 65, 101-102.	1.2	0
57	Large-scale identification of patients with cerebral aneurysms using natural language processing. <i>Neurology</i> , 2017, 88, 164-168.	1.1	92
58	Use of Intraoperative Ultrasound During Spinal Surgery. <i>Global Spine Journal</i> , 2017, 7, 648-656.	2.6	35
59	From the Bottom Up: The Role of Sacral Pattern Generators in Modulating Rostral Lumbar Flexor Motor Neurons. <i>Neurosurgery</i> , 2017, 81, N28-N29.	1.2	0
60	The Effects of Thermal Preconditioning on Oncogenic and Intraspinal Cord Growth Features of Human Glioma Cells. <i>Cell Transplantation</i> , 2016, 25, 2099-2109.	2.6	11
61	New Targeted Treatment for Ankylosing Spondylitis. <i>Neurosurgery</i> , 2016, 78, N14-N15.	1.2	0
62	Long-term Training With a Brain-Machine Interface-Based Gait Protocol Induces Partial Neurological Recovery in Paraplegic Patients. <i>Neurosurgery</i> , 2016, 79, N13-N14.	1.2	11
63	Infiltrating spinal cord astrocytomas: Epidemiology, diagnosis, treatments and future directions. <i>Journal of Clinical Neuroscience</i> , 2016, 29, 15-20.	1.6	29
64	Targeted Treatment of Experimental Spinal Cord Glioma With Dual Gene-Engineered Human Neural Stem Cells. <i>Neurosurgery</i> , 2016, 79, 481-491.	1.2	22
65	Connexin 36 and rod bipolar cell independent rod pathways drive retinal ganglion cells and optokinetic reflexes. <i>Vision Research</i> , 2016, 119, 99-109.	1.5	26
66	The frequency and severity of intracranial hypotension post-intraoperative lumbar drainage using a Tuohy needle and the traditional needle. <i>British Journal of Neurosurgery</i> , 2016, 30, 438-443.	0.9	8
67	The Neurocritical and Neurosurgical Care of Subdural Hematomas. <i>Neurocritical Care</i> , 2016, 24, 294-307.	2.6	32
68	The role of simulation in neurosurgery. <i>Child's Nervous System</i> , 2016, 32, 43-54.	1.1	143
69	Implantation of Neonatal Skinâ€Derived Precursor Schwann Cells Improves Outcomes After Incomplete Cervical Spinal Cord Injury in Rats. <i>Neurosurgery</i> , 2015, 77, N15-N17.	1.2	4
70	Timing Is Everything in Corticospinal Tract Recovery After Stroke. <i>Neurosurgery</i> , 2015, 76, N18-N19.	1.2	2
71	â€Extraoperativeâ€MRI (eoMRI) for Brain Tumor Surgery: Initial Results at a Single Institution. <i>World Neurosurgery</i> , 2015, 83, 921-928.	1.5	1
72	Minimally Invasive Muscle Sparing Posterior-Only Approach for Lumbar Circumferential Decompression and Stabilization to Treat Spine Metastasisâ€Technical Report. <i>World Neurosurgery</i> , 2015, 84, 1484-1490.	1.5	42

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73	No Free Lunch: Secondary Neoplasms After Stereotactic Radiation. <i>World Neurosurgery</i> , 2015, 83, 330-331.	1.5	1
74	How Much Is Enough? The Question of Extent of Resection in Glioblastoma Multiforme. <i>World Neurosurgery</i> , 2014, 82, e109-e110.	1.5	16
75	Who Benefits from Surgery for Brain Metastases?. <i>World Neurosurgery</i> , 2014, 82, e115-e116.	1.5	0
76	Less Is More: Limiting the Size of Posterior Fossa Decompressions in Chiari I Malformations. <i>World Neurosurgery</i> , 2014, 81, 706-707.	1.5	7
77	Looking Through a Crystal Ball—The Question of Primarily Fusing to the Pelvis in Adult Degenerative Scoliosis. <i>World Neurosurgery</i> , 2014, 82, e451-e452.	1.5	0
78	The origin and evolution of neuroendoscopy. <i>Child's Nervous System</i> , 2013, 29, 727-737.	1.1	23
79	Effect of disease and recovery on functional anatomy in brain tumor patients: insights from functional MRI and diffusion tensor imaging. <i>Imaging in Medicine</i> , 2013, 5, 333-346.	0.0	14
80	Initial experience with the use of an expandable titanium cage as a vertebral body replacement in patients with tumors of the spinal column: a report of 95 patients. <i>European Spine Journal</i> , 2012, 21, 84-92.	2.3	40
81	Atypical Rasmussen's encephalitis treated with temporal lobectomy. <i>Journal of Clinical Neuroscience</i> , 2011, 18, 287-290.	1.6	6
82	The Cancer Stem Cell Hypothesis: Failures and Pitfalls. <i>Neurosurgery</i> , 2011, 68, 531-545.	1.2	122
83	Vagus nerve stimulation for drop attacks in a pediatric population. <i>Epilepsy and Behavior</i> , 2010, 19, 394-399.	1.8	17
84	Genetic Dissection of Rod and Cone Pathways in the Dark-Adapted Mouse Retina. <i>Journal of Neurophysiology</i> , 2009, 102, 1945-1955.	1.9	86
85	Safety and Pharmacokinetics of Triamcinolone Hexacetonide in Rabbit Eyes. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2008, 24, 197-205.	1.6	1
86	Long-term Retinal Toxicity of Intravitreal Commercially Available Preserved Triamcinolone Acetonide (Kenalog) in Rabbit Eyes. , 2007, 48, 390.		45
87	Relative contributions of rod and cone bipolar cell inputs to All amacrine cell light responses in the mouse retina. <i>Journal of Physiology</i> , 2007, 580, 397-410.	2.9	63
88	Impaired photoreceptor protein transport and synaptic transmission in a mouse model of Bardet-Biedl syndrome. <i>Vision Research</i> , 2007, 47, 3394-3407.	1.5	107
89	Phenotypic characterization of Bbs4 null mice reveals age-dependent penetrance and variable expressivity. <i>Human Genetics</i> , 2006, 120, 211-226.	3.8	106
90	Optical imaging of cervical pre-cancers with structured illumination: An integrated approach. <i>Gynecologic Oncology</i> , 2005, 99, S112-S115.	1.4	29

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91	Optimal visual perception and detection of oral cavity neoplasia. IEEE Transactions on Biomedical Engineering, 2003, 50, 396-399.	4.3	12
92	Beyond Placement of Pedicle Screws - New Applications for Robotics in Spine Surgery: A Multi-Surgeon, Single-Institution Experience. Frontiers in Surgery, 0, 9, .	1.5	5