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Clinical Literature Library





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Periodic intrafraction image-guided focal dose-escalated stereotactic body radiotherapy for prostate carcinoma on a standard linear accelerator	Marco Serpa et al.	2026	Physics and Imaging in Radiation Oncology		Go to article
Independent Six-degree-of-freedom Accuracy Evaluation of BrainLab ExacTrac Dynamic and Varian CBCT Systems in Stereotactic Radiotherapy Using a Couch-based Reference	Deniz Yalman et al.	2026	Turk J Oncol.		Go to article
Clinical Workflow of Spine Stereotactic Radiotherapy and Radiosurgery: Insights from a Single-Institution Physics Perspective	Mackin D et al.	2026	Cancers (Basel).		Go to article
Improvement in positional accuracy with integrated surface- and X-ray imaging for intracranial stereotactic radiosurgery patients	Caisa Kjellström et al.	2026	Physics and Imaging in Radiation Oncology		Go to article
To shift or not to shift: identifying and correcting patient motion after couch rotations in non-coplanar intracranial radiosurgery with stereoscopic X-ray imaging	Da Silva Mendes V et al.	2026	J Appl Clin Med Phys.		Go to article
Five-year evaluation of linear accelerator-based SRS platform isocentricity	Walter YA et al.	2025	J Appl Clin Med Phys.		Go to article
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Workflow evaluation of surface-guided patient preposition in radiotherapy	Mikkel Skaarup, Nikolaj Kylling Gyldenløve Jensen	2025	Physics and Imaging in Radiation Oncology		Go to article
Impact of intrafraction fiducial tracking on planning target margins during prostate stereotactic body radiotherapy using Brainlab ExacTrac Dynamic with robotic couch correction	Worth M et al.	2025	J Appl Clin Med Phys.		Go to article



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A surgeon-controlled mode of robotic assistance with posterolateral approach helps achieve highly medialized cervical pedicle screw placement to avoid vertebral artery injury	Tani et al.	2025	European Spine Journal		Go to article
Predictors of treatment response and overall survival in patients with breast cancer brain metastases treated with stereotactic radiosurgery: a prospective study using the NeuroPoint Alliance SRS Registry	Katsos K et al.	2025	J Neurosurg.		Go to article
Producing high quality cranial SRS plans with 4Pi planning technique in a commercial clinical solution	Narayananam y G et al.	2025	J Appl Clin Med Phys.		Go to article
Quantitative evaluation of neuroradiological and morphometric alteration of inferior Fronto-Occipital Fascicle across different brain tumor histotype: an Italian multicentric study	Altieri et al.	2025	Acta Neurochirurgica		Go to article
Brainshift correction using navigated intraoperative ultrasound informs intraoperative decision-making during glioma surgery	Rai et al.	2025	Acta Neurochirurgica		Go to article
Integrating a novel tablet-based digital neurocognitive assessment tool in brain metastases patients	Menendez MAR et al.	2025	J Neurooncol.		Go to article
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Improving dose delivery in non-coplanar cranial SRS: Stereoscopic x-ray-guided mitigation of table walkout errors	Walter YA et al.	2025	J Appl Clin Med Phys.		Go to article
Evaluation of an updated pencil beam algorithm for enhanced dosimetric accuracy in stereotactic radiotherapy	Retif P et al.	2025	Phys Med.		Go to article



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Quality of life after stereotactic radiosurgery for brain metastasis: an assessment from a prospective national registry	Pham DQ et al.	2025	J Neurooncol.		Go to article
Evaluating the diagnostic ability of treatment response assessment maps (TRAMs)/contrast clearance analysis (CCA) in predicting the presence of active brain tumors	Alkhatatneh H et al.	2025	Neuroradiol J.		Go to article
Evaluation of MRI technologies for surgical spine planning and navigation	Rommelspacher et al.	2025	European Spine Journal		Go to article
Single and multitarget stereotactic radiosurgery (SRS) with single isocenter in the treatment of multiple brain metastases (BM): institutional experience	Ciérvide R et al.	2025	Clin Transl Oncol.		Go to article
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Automatic Image Registration Provides Superior Accuracy Compared with Surface Matching in Cranial Navigation	Frisk et al.	2024	Sensors (Basel, Switzerland)		Go to article
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Hybrid-3D robotic suite in spine and trauma surgery - experiences in 210 patients	Haida et al.	2024	Journal of Orthopaedic Surgery and Research		Go to article
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Image-guided programming deep brain stimulation improves clinical outcomes in patients with Parkinson's disease	Torres et al.	2024	NPJ Parkinson's disease		Go to article
The Use of Image Guided Programming to Improve Deep Brain Stimulation Workflows with Directional Leads in Parkinson's Disease	Rolland et al.	2024	Journal of Parkinson's disease		Go to article
Surgical Navigation and CAD-CAM-Designed PEEK Prosthesis for the Surgical treatment of facial intraosseous vascular anomalies.	Dean et al.	2024	Journal of Clinical Medicine		Go to article
Early experience with an artificial intelligence-based module for brain metastasis detection and segmentation	Madhugiri	2024	Journal of Neuro-Oncology		Go to article
Intraoperative cone-beam computed tomography for catheter placement verification in pediatric hydrocephalus: technical note - PubMed (nih.gov)	Krause et al.	2024	Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery		Go to article
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Technique, Safety, and Accuracy Assessment of Percutaneous Pedicle Screw Placement Utilizing Computer-Assisted Navigation in Lateral Decubitus Single-Position Surgery	Anna-Katharina Calek	2024	International Journal of Spine Surgery		Go to article
Navigation and robotic-assisted single-position prone lateral lumbar interbody fusion: preliminary results of the first cases in Brazil - PubMed (nih.gov)	Rodrigo de Souza Lima	2024	World Neurosurgery		Go to article
Evaluating stereotactic accuracy with patient-specific MRI distortion corrections for frame-based radiosurgery	Knill C et al.	2024	J Appl Clin Med Phys.		Go to article



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Streamlining streamlines: Probabilistic versus deterministic tractography algorithms in two CE marked software packages - ScienceDirect	Jessica Fitzpatrick	2024	Physica Medica		Go to article
Navigated Intraoperative Ultrasound Offers Effective and Efficient Real-Time Analysis of Intracranial Tumor Resection and Brain Shift - PubMed (nih.gov)	West et al.	2024	Operative neurosurgery (Hagerstown, Md.)		Go to article
Navigated intraoperative ultrasound in pediatric brain tumors - PubMed (nih.gov)	Klein Gunnewiek et al.	2024	Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery		Go to article
Comparison of Cervical Pedicle Screw Placement Accuracy With Robotic Guidance System Versus Image Guidance System Using Propensity Score Matching	Yamamoto et al.	2024	Clinical spine surgery		Go to article
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Effect of prescription isodose line on tissue sparing in linear accelerator-based stereotactic radiosurgery treating multiple brain metastases using dynamic conformal arcs	Walter YA	2024	J Appl Clin Med Phys.		Go to article
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MRI Treatment Response Assessment Maps (TRAMs) for differentiating recurrent glioblastoma from radiation necrosis	Müller SJ et al.	2024	J Neurooncol.		Go to article
Intrafractional motion detection for spine SBRT via X-ray imaging using ExacTrac Dynamic	Johannes Muecke	2024	Clinical and Translational Radiation Oncology		Go to article
Contrast Clearance Analysis (CCA) to Assess Viable Tumour following Stereotactic Radiosurgery (SRS) to Brain Metastasis in Non-Small Cell Lung Cancer (NSCLC)	Mohamedkhan et al.	2024	Cancers		Go to article
Assessing the impact of distortion correction on Gamma Knife radiosurgery for multiple metastasis: Volumetric and dosimetric analysis	Yavuz Samanci et al.	2024	Brain and Spine		Go to article
Using Augmented Reality Technology to Optimize Transfacet Lumbar Interbody Fusion: A Case Report	Bardeesi et al.	2024	JCM (Journal of Clinical Medicine)		Go to article
Automatic image registration on intraoperative CBCT compared to Surface Matching registration on preoperative CT for spinal navigation: accuracy and workflow	Frisk et al.	2024	International journal of computer assisted radiology and surgery		Go to article
Improving the efficiency of single-isocenter multiple metastases stereotactic radiosurgery treatment	Jonathan J Wyatt	2024	Advances in Radiation Oncology		Go to article



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Histopathological correlation of brain tumor recurrence vs. radiation effect post-radiosurgery as detected by MRI contrast clearance analysis: a validation study	Goulenko V et al.	2024	J Neurooncol.		Go to article
Feasibility of local field potential-guided programming for deep brain stimulation in Parkinson's disease: A comparison with clinical and neuro-imaging guided approaches in a randomized, controlled pilot trial	Binder et al.	2023	Brain stimulation		Go to article
Cirq® robotic assistance for percutaneous kyphoplasty of C1: report on feasibility	Meyer et al.	2023	Acta neurochirurgica		Go to article
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Cochlear sparing in LINAC-based radiosurgery for vestibular schwannoma: a dosimetric comparison of dynamic conformal arc, IMRT and VMAT treatment plans	Khong J	2023	Radiat Oncol.		Go to article
Cirq® robotic assistance for thoracolumbar pedicle screw placement – feasibility, accuracy, and safety	Gabrovsky Nikolay et al.	2023	Brain and Spine		Go to article



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Automatic rigid image Fusion of preoperative MR and intraoperative US acquired after craniotomy	Edoardo Mazzucchi	2023	Cancer Imaging		Go to article
A sub-analysis of multi-center planning radiosurgery for intracranial metastases through automation (MC-PRIMA) comparing UK and international centers	Mark K.H. Chan	2023	Medical Engineering and Physics		Go to article
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Dynamic intrafractional position monitoring with implanted fiducial markers for enhanced accuracy in radiotherapy of prostate cancer	Mangesius J	2023	Phys Eng Sci Med.		Go to article



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Hypofractionated stereotactic radiotherapy (HFSRT) versus single fraction stereotactic radiosurgery (SRS) to the resection cavity of brain metastases after surgical resection (SATURNUS): study protocol for a randomized phase III trial	Waltenberger M	2023	BMC Cancer.		Go to article
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ExacTrac X-Ray 6D Imaging During Stereotactic Body Radiation Therapy of Spinal and Nonspinal Metastases	Hadj Henni A	2023	Technol Cancer Res Treat.		Go to article
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Urethra-sparing prostate cancer stereotactic body radiotherapy: sexual function and radiation dose to the penile bulb, the crura, and the internal pudendal arteries from a randomized phase 2 trial	Achard V	2023	Int J Radiat Oncol Biol Phys.		Go to article
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Stereoscopic X-ray image and thermo-optical surface guidance for breast cancer radiotherapy in deep inspiration breath-hold	Buschmann M	2023	Strahlenther Onkol.		Go to article



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Targeting Accuracy of the Leksell Vantage Stereotactic System for Deep Brain Stimulation Surgery: A Retrospective Review	Phillips et al.	2023	Oper Neurosurg (Hagerstown)		Go to article
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Airo® navigation versus freehand fluoroscopy technique: A comparative study of accuracy and radiological exposure for thoracolumbar screws placement	Chatelain	2023	Neurochirurgie		Go to article
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Reduction in CT scan number with the reference frame middle attachment method in intraoperative CT navigation for adolescent idiopathic scoliosis	Hiroki Oba	2023	European Spine Journal		Go to article
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Factors associated with progression and mortality among patients undergoing stereotactic radiosurgery for intracranial metastasis: results from a national real-world registry	Alvi et al.	2022	Journal of Neurosurgery (published online ahead of print)		Go to article
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Tracking motor and language eloquent white matter pathways with intraoperative fiber tracking versus preoperative tractography adjusted by intraoperative MRI-based elastic fusion	Zhang et al.	2022	Journal of neurosurgery		Go to article
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Multi-center planning study of radiosurgery for intracranial metastases through Automation (MC-PRIMA) by crowdsourcing prior web-based plan challenge study	M.K.H. Chan	2022	Physica Medica		Go to article
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A phantom-based study and clinical implementation of Brainlab's treatment planning system for radiosurgical treatments of arteriovenous malformations	Nishan Shrestha et al.	2022	Biomed Phys Eng Express.		Go to article
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PO-1130 Stereotactic Radiosurgery for trigeminal neuralgia using Exactrac Dynamic. First experience	A. Corro Verde	2022	Radiotherapy and Oncology		Go to article
Primary Orbital Reconstruction with Selective Laser Melting (SLM) of Patient-Specific Implants (PSIs): An Overview of 96 Surgically Treated Patients	Rana et al.	2022	Journal of clinical medicine		Go to article



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Frameless Co-Registration of Biplane 2D Digital Subtraction Angiography Whole Frames and 3D Rotational Angiography-Based Cone-Beam Computed Tomography Angiogram on Dedicated Software for Stereotactic Radiosurgery of Cranial Vascular Malformations	Kazuhiro Ohtakara	2022	Cureus		Go to article
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Optimized workflow to minimise intra-fractional motion during stereotactic body radiotherapy of spinal metastases	W.M. vanNiekerk	2022	Tecnical Innovations & Patient Support in Radiation Oncology		Go to article
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Augmented Reality to Improve Surgical Workflow in Minimally Invasive Transforaminal Lumbar Interbody Fusion – A Feasibility Study With Case Series	Sommer et al.	2022	Neurospine		Go to article
Augmented Reality to Compensate for Navigation Inaccuracies	Bopp et al.	2022	Sensors		Go to article
Personalized Medicine Workflow in Post-Traumatic Orbital Reconstruction	Sabelis et al.	2022	Journal of personalized medicine		Go to article



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Usability of mixed reality in awake craniotomy planning	Moon, Barua	2022	British journal of neurosurgery		Go to article
Stimulation of the Presupplementary Motor Area Cluster of the Subthalamic Nucleus Predicts More Consistent Clinical Outcomes	Kähkölä et al.	2022	Neurosurgery		Go to article
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Focused ultrasound using a novel targeting method four-tract tractography for magnetic resonance-guided high-intensity focused ultrasound targeting	Feltrin et al.	2022	Brain Communications		Go to article
Pushing the boundaries of accuracy and reliability during stereotactic procedures: A prospective study on 526 biopsies comparing the frameless robotic and Image-Guided Surgery systems	Charles-Henry Mallereau	2022	J Clin Neurosci		Go to article
SURG-04. Robotic alignment system Cirq (Brainlab) for navigated brain tumor biopsies in children	Kirsten van Baarsen	2022	Neuro Oncology		Go to article
A framework for ExacTrac Dynamic commissioning for stereotactic radiosurgery and stereotactic ablative radiotherapy	Ben Perrett	2022	J Med Phys		Go to article
Effectiveness of a cranial distortion correction software using a novel measurement method	Belloeil-Marrane et al.	2022	Journal of Radiosurgery and SBRT		Go to article
The Importance of Distortion Correction in Stereotactic Radiosurgery for Trigeminal Neuralgia	Samanci et al.	2022	Journal of Radiosurgery and SBRT		Go to article
Gantry triggered X-ray verification of patient positioning during single-isocenter stereotactic radiosurgery using ExacTrac Dynamic: Increasing certainty of lesion localization	Gutiérrez et al.	2022	Journal of Radiosurgery and SBRT		Go to article



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Navigation Techniques in Endoscopic Spine Surgery	Hagan et al.	2022	BioMed research international		Go to article
Pre-Operative Digital Templating Aids Restoration of Leg-Length Discrepancy and Femoral Offset in Patients Undergoing Total Hip Arthroplasty for Primary Osteoarthritis	Joshua Rui Yen Wong	2022	Cureus		Go to article
Preoperative joint line convergence angle correction is a key factor in optimising accuracy in varus knee correction osteotomy	P. Behrendt	2022	Knee Surgery, Sports Traumatology, Arthroscopy		Go to article
Atlantoaxial posterior screw fixation using intra-operative spinal navigation with three-dimensional isocentric C-arm fluoroscopy	Jannelli et al.	2022	International orthopaedics		Go to article
Pedicle Screw Placement Using Intraoperative Computed Tomography and Computer-Aided Spinal Navigation Improves Screw Accuracy and Avoids Postoperative Revisions: Single-Center Analysis of 1400 Pedicle Screws	Hagan et al.	2022	World neurosurgery		Go to article
Novel MIS 3D NAV Single Step Pedicle Screw System (SSPSS): Workflow, Accuracy and Initial Clinical Experience	Schmidt et al.	2022	Global Spine Journal		Go to article
Automated optimization of deep brain stimulation parameters for modulating neuroimaging-based targets	Malekmoham madi M	2022	Journal of neural engineering		Go to article
Shift detection discrepancy between ExacTrac Dynamic system and cone-beam computed tomography	Chow VUY	2022	Appl Clin Med Phys.		Go to article
Treatment Response Assessment Maps (TRAMs), a new tool for CNS lymphoma	Millard T et al.	2022	EJHaem.		Go to article
Producing High Quality Cranial SRS Plans with 4Pi Planning Technique	G Narayanasamy	2022	Medical Physics		Go to article



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Augmented reality-assisted craniofacial reconstruction in skull base lesions - an innovative technique for single-step resection and cranioplasty in neurosurgery	Christine Steiert	2022	Neurosurgical review		Go to article
Advances and Innovations in Ablative Head and Neck Oncologic Surgery Using Mixed Reality Technologies in Personalized Medicine	Nadia Karnatz	2022	Journal of clinical medicine		Go to article
Resolving dyskinesias at sustained anti-OCD efficacy by steering of DBS away from the anteromedial STN to the mesencephalic ventral tegmentum - case report.	Coenen et al.	2022	Acta Neurochir (Wien)		Go to article
Clinical efficiency of operating room-based sliding gantry CT as compared to mobile cone-beam CT-based navigated pedicle screw placement in 853 patients and 6733 screws	Ille et al.	2021	European spine journal		Go to article
Intraoperative MRI-based elastic fusion for anatomically accurate tractography of the corticospinal tract: correlation with intraoperative neuromonitoring and clinical status	Ille et al.	2021	Neurosurgical focus		Go to article
Large residual pilocytic astrocytoma after failed ultrasound-guided resection: intraoperative ultrasound limitations require special attention	Šteňo, Buvala	2021	World neurosurgery		Go to article
Elastic Image Fusion Software to Coregister Preoperatively Planned Pedicle Screws With Intraoperative Computed Tomography Data for Image-Guided Spinal Surgery.	Schmidt et al.	2021	International journal of spine surgery		Go to article
Tractography for Subcortical Resection of Gliomas Is Highly Accurate for Motor and Language Function: ioMRI-Based Elastic Fusion Disproves the Severity of Brain Shift.	Ille et al.	2021	Cancers		Go to article
Initial Intraoperative Experience with Robotic-Assisted Pedicle Screw Placement with Cirq® Robotic Alignment: An Evaluation of the First 70 Screws	Pojskić et al.	2021	JCM		Go to article



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Challenges and Opportunities of Intraoperative 3D Ultrasound With Neuronavigation in Relation to Intraoperative MRI	Bastos et al.	2021	Frontiers in oncology		Go to article
Surgical strategies for older patients with glioblastoma	Barak et al.	2021	Journal of neuro-oncology		Go to article
Do directional deep brain stimulation leads rotate after implantation?	Krüger et al.	2021	Acta neurochirurgica		Go to article
A detailed analysis of anatomical plausibility of crossed and uncrossed streamline rendition of the dentato-rubro-thalamic tract (DRT(T)) in a commercial stereotactic planning system	Coenen et al.	2021	Acta neurochirurgica		Go to article
Reduced Programming Time and Strong Symptom Control Even in Chronic Course Through Imaging-Based DBS Programming	Lange et al.	2021	Front. Neurol. (Frontiers in Neurology)		Go to article
Imaging-based programming of subthalamic nucleus deep brain stimulation in Parkinson's disease	Waldthaler et al.	2021	Brain stimulation		Go to article
Application of Augmented Reality in Percutaneous Procedures-Rhizotomy of the Gasserian Ganglion	Rau et al.	2021	Operative Neurosurgery		Go to article
Navigated Deep Brain Stimulation Surgery: Evaluating the Combined Use of a Frame-Based Stereotactic System and a Navigation System	Krüger et al.	2021	Stereotactic and functional neurosurgery		Go to article
Longitudinal Assessment of Rotation Angles after Implantation of Directional Deep Brain Stimulation Leads	Lange et al.	2021	Stereotactic and functional neurosurgery		Go to article
Intra-Fraction Motion Management for Radiosurgical Treatments of Trigeminal Neuralgia: Clinical Experience, Imaging Frequency, and Motion Analysis	Agazaryan et al.	2021	Cureus		Go to article
Local failure after stereotactic radiosurgery (SRS) for intracranial metastasis: analysis from a cooperative, prospective national registry	Asher et al.	2021	J Neurooncol (Journal of Neuro-Oncology)		Go to article



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Hypofractionated stereotactic radiotherapy for large brain metastases: Optimizing the dosimetric parameters	Brun et al.	2021	Cancer radiotherapie : journal de la Societe francaise de radiotherapie oncologique		Go to article
Dosimetric study between a single isocenter dynamic conformal arc therapy technique and Gamma Knife radiosurgery for multiple brain metastases treatment: impact of target volume geometrical characteristics	Chea et al.	2021	Radiation oncology (London, England)		Go to article
Commissioning cranial single-isocenter multi-target radiosurgery for the Versa HD	Knill et al.	2021	Journal of applied clinical medical physics		Go to article
Accuracy of dose-volume metric calculation for small-volume radiosurgery targets	Stanley et al.	2021	Med. Phys. (Medical physics)		Go to article
Single isocenter treatment planning techniques for stereotactic radiosurgery of multiple cranial metastases	Velten et al.	2021	Physics and Imaging in Radiation Oncology		Go to article
Targeting for stereotactic radiosurgical thalamotomy based on tremor treatment response	Luo et al.	2021	Journal of neurosurgery		Go to article
Reduction of inter-observer differences in the delineation of the target in spinal metastases SBRT using an automatic contouring dedicated system	Niccolò Giaj-Levra	2021	Radiat Oncol.		Go to article
Analysis of potential time saving in brain arteriovenous malformation stereotactic radiosurgery planning using a new software platform	Guilherme Dabus	2021	Med Dosim.		Go to article
Quality of Automated Stereotactic Radiosurgery Plans in Patients with 4 to 10 Brain Metastases	Petoukhova	2021	Cancers (Basel).		Go to article
The Use of Treatment Response Assessment Maps in Discriminating Between Radiation Effect and Persistent Tumoral Lesion in Metastatic Brain Tumors Treated with Gamma Knife Radiosurgery	Selcuk Peker et al.	2021	World Neurosurg.		Go to article



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Lower Limb Deformity and Gait Deviations Among Adolescents and Adults With X-Linked Hypophosphatemia	Gabriel T. Mindler	2021	Front. Endocrinol		Go to article
KingMark's dual-marker versus a conventional single-marker templating system: is there a difference in accuracy of predicting final implant sizes and leg lengths?	Mohammad Al-Ashqar	2021	Eur J Orthop Surg Traumatol		Go to article
Bone Lengthening with a Motorized Intramedullary Nail in 34 Patients with Posttraumatic Limb Length Discrepancies	Maxime Teulières	2021	PMC Journal		Go to article
Case Report: Multimodal Functional and Structural Evaluation Combining Pre-operative nTMS Mapping and Neuroimaging With Intraoperative CT-Scan and Brain Shift Correction for Brain Tumor Surgical Resection	Senova et al.	2021	Frontiers in human neuroscience		Go to article
Robotic Assistance for Minimally Invasive Cervical Pedicle Instrumentation: Report on Feasibility and Safety	Farah et al.	2021	World neurosurgery		Go to article
Cirq robotic arm-assisted transpedicular instrumentation with intraoperative navigation: technical note and case series with 714 thoracolumbar screws	Chesney et al.	2021	Journal of robotic surgery		Go to article
Simultaneous stereotactic radiosurgery of multiple brain metastases using single-isocenter dynamic conformal arc therapy: a prospective monocentric registry trial	Bodensohn et al.	2021	Strahlenther Onkol		Go to article
Noninvasive Thalamotomy for Refractory Tremor by Frameless Radiosurgery	Mohamed H Khattab	2021	Int J Radiat Oncol Biol Phys.		Go to article
Simultaneous radiosurgery for multiple brain metastases: technical overview of the UCLA experience	Nzhde Agazaryan	2021	Radiat Oncol.		Go to article
Supratentorial high-grade gliomas: maximal safe anatomical resection guided by augmented reality high-definition fiber tractography and fluorescein	Luzzi et al.	2021	Neurosurgical focus		Go to article



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PO-1752 Intrafractional motion detection for spine SBRT via X-ray imaging using ExacTrac Dynamic	J. Mücke	2021	Radiotherapy and Oncology		Go to article
PO-1556 Evaluation of the new Brainlab ExacTrac Dynamic structured light positioning system	R. Astudillo	2021	Radiotherapy and Oncology		Go to article
Elastic Image Fusion Software to Coregister Preoperatively Planned Pedicle Screws With Intraoperative Computed Tomography Data for Image-Guided Spinal Surgery	Franziska A. Schmidt	2021	International Journal of Spine Surgery		Go to article
Comparing Fiducial-Based and Intraoperative Computed Tomography-Based Registration for Frameless Stereotactic Brain Biopsy	Benjamin Saß	2021	Stereotact Funct Neurosurg		Go to article
Mobile intraoperative CT-assisted frameless stereotactic biopsies achieved singlemillimeter trajectory accuracy for deep-seated brain lesions in a sample of 7 patients	Oliver Bichsel	2021	BMC Neurol		Go to article
Targeting the safe zones for cup position without fluoroscopic guidance in total hip arthroplasty: does the surgical approach affect the outcomes?	Carlo Trevisan	2021	European Journal of Orthopaedic Surgery & Traumatology		Go to article
Reliability of a simple fluoroscopic image to assess leg length discrepancy during direct anterior approach total hip arthroplasty	Sandi Caus	2021	World Journal of Orthopedics		Go to article
Evaluation of the implantation of transpedicular screws in spinal instrumentation with free-hand technique and navigation-assisted with intraoperative computed tomography: An analytical-positional study	González-Vargas et al.	2021	Neurocirugia		Go to article
VarioGuide® frameless neuronavigation-guided stereoelectroencephalography in adult epilepsy patients: technique, accuracy and clinical experience	Ladisich B	2021	Acta neurochirurgica		Go to article
Are treatment response assessment maps (TRAMs) and 18 F-choline positron emission tomography the future of central nervous system lymphoma imaging?	Kowa JY et al.	2021	Br J Haematol.		Go to article



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Mixed reality in oral and maxillofacial surgery: a symbiosis of virtual and augmented reality or a pointless technological gadget?	Alexander K Bartella	2021	International journal of computerized dentistry		Go to article
Intraoperative Computed Tomography and Finite Element Modelling for Multimodal Image Fusion in Brain Surgery	Riva et al.	2020	Operative neurosurgery (Hagerstown, Md.)		Go to article
Navigated intraoperative ultrasonography for brain tumors: a pictorial essay on the technique, its utility, and its benefits in neuro-oncology	Yeole et al.	2020	Ultrasonography (Seoul, Korea)		Go to article
Augmented Reality in Superficial Temporal Artery to Middle Cerebral Artery Bypass Surgery: Technical Note	Rychen et al.	2020	Operative neurosurgery (Hagerstown, Md.)		Go to article
Augmented reality for the virtual dissection of white matter pathways	Ille et al.	2020	Acta neurochirurgica		Go to article
Clinical Uses of Diffusion Tensor Imaging Fiber Tracking Merged Neuronavigation with Lesions Adjacent to Corticospinal Tract : A Retrospective Cohort Study	Yu et al.	2020	Journal of Korean Neurosurgical Society		Go to article
Surgical workflow for fully navigated high sacral amputation in sacral chordoma	Goldberg et al.	2020	Neurosurgical review		Go to article
Spine Surgery Supported by Augmented Reality	Carl et al.	2020	Global Spine Journal		Go to article
Cirq® Robotic Assistance for Minimally Invasive C1-C2 Posterior Instrumentation: Report on Feasibility and Safety	Farah et al.	2020	Operative neurosurgery (Hagerstown, Md.)		Go to article
Evolving Navigation, Robotics, and Augmented Reality in Minimally Invasive Spine Surgery	Hussain et al.	2020	Global Spine Journal		Go to article
Orbital floor symmetry after maxillectomy and orbital floor reconstruction with individual titanium mesh using computer-assisted navigation	Kang et al.	2020	Journal of plastic, reconstructive & aesthetic surgery : JPRAS		Go to article
Application of Computer-Aided Navigation Technology in the Extraction of Foreign Body From the Face	Lan et al.	2020	The Journal of craniofacial surgery		Go to article



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Three-Dimensional Accuracy of Bone Contouring Surgery for Zygomaticomaxillary Fibrous Dysplasia Using Virtual Planning and Surgical Navigation	Liu et al.	2020	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons		Go to article
Removal of Orbital Metallic Foreign Bodies With Image-Guided Surgical Navigation	Zhao et al.	2020	Ophthalmic plastic and reconstructive surgery		Go to article
Comparison of Automatic Segmentation Algorithms for the Subthalamic Nucleus	Polanski et al.	2020	Stereotactic and functional neurosurgery		Go to article
Evaluation of Automatic Segmentation of Thalamic Nuclei through Clinical Effects Using Directional Deep Brain Stimulation Leads: A Technical Note	Krüger et al.	2020	Brain sciences		Go to article
Novel Programming Features Help Alleviate Subthalamic Nucleus Stimulation-Induced Side Effects	Dayal et al.	2020	Movement disorders : official journal of the Movement Disorder Society		Go to article
Intraoperative Stereotactic Frame Registration Using a Three-Dimensional Imaging System with and without Preoperative Computed Tomography for Image Fusion	Spatz et al.	2020	Stereotactic and functional neurosurgery		Go to article
Deep brain stimulation and refractory freezing of gait in Parkinson's disease: Improvement with high-frequency current steering co-stimulation of subthalamic nucleus and substantia nigra	Golfrè Andreasi et al.	2020	Brain stimulation		Go to article
Visualization of volume of tissue activated modeling in a clinical planning system for deep brain stimulation	Carl et al.	2020	Journal of neurosurgical sciences		Go to article
Quality-of-life trajectories after stereotactic radiosurgery for brain metastases	Bunevicius et al.	2020	Journal of neurosurgery		Go to article



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Positioning accuracy of a single-isocenter multiple targets SRS treatment: A comparison between Varian TrueBeam CBCT and Brainlab ExacTrac	Graulieres et al.	2020	Physica Medica		Go to article
Dosimetric comparison of mono-isocentric and multi-isocentric plans for oligobrain metastases: A single institutional experience	Kuntz et al.	2020	Cancer radiotherapie : journal de la Societe francaise de radiotherapie oncologique		Go to article
Patient-specific dose quality assurance of single-isocenter multiple brain metastasis stereotactic radiosurgery using PTW Octavius 4D	McCulloch et al.	2020	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)		Go to article
Time-Driven Activity-Based Costing Comparison of Stereotactic Radiosurgery to Multiple Brain Lesions Using Single-Isocenter Versus Multiple-Isocenter Technique	Parikh et al.	2020	International Journal of Radiation Oncology*Biolog*Physics		Go to article
Effects of Multileaf Collimator Design and Function When Using an Optimized Dynamic Conformal Arc Approach for Stereotactic Radiosurgery Treatment of Multiple Brain Metastases With a Single Isocenter: A Planning Study	Taylor et al.	2020	Cureus		Go to article
Evaluation of Elements Spine SRS Plan Quality for SRS and SBRT Treatment of Spine Metastases	Trager et al.	2020	Frontiers in oncology		Go to article
Once-a-week or every-other-day urethra-sparing prostate cancer stereotactic body radiotherapy, a randomized phase II trial: 18 months follow-up results	Zilli et al.	2020	Cancer Medicine		Go to article
SBRT in single or multiple spinal metastases: 36 Gy in 3 fractions given to GTV	Zunino et al.	2020	Radiocirurgia (Radiocirugía)		Go to article
Digital Preop-planning of Total Hip Arthroplasties	Nicolas Reina	2020	N/A		Go to article
Orthopedic Digital Planning for Total Hip Arthroplasties	Nicolas Reina	2020	N/A		Go to article



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Should we employ preoperative templating in hip hemiarthroplasty after femoral neck fracture? A nested case-control study	Oriol Pujol	2020	Sage Journal		Go to article
Initial Experience With Single-Isocenter Radiosurgery to Target Multiple Brain Metastases Using an Automated Treatment Planning Software: Clinical Outcomes and Optimal Target Volume Margins Strategy	Minniti et al.	2020	Advances in Radiation Oncology		Go to article
Neurological outcome and memory performance in patients with 10 or more brain metastases treated with frameless linear accelerator (LINAC)-based stereotactic radiosurgery	Minniti et al.	2020	J Neurooncol (Journal of Neuro-Oncology)		Go to article
Risk Assessment by Presurgical Tractography Using Navigated TMS Maps in Patients with Highly Motor- or Language-Eloquent Brain Tumors	Sollmann et al.	2020	Cancers		Go to article
Accuracy and safety of pedicle screws implantation using Zeego and Brainlab navigation system in hybrid operation room	Fong et al.	2020	Formos J Surg		Go to article
Feasibility of intraoperative computed tomography for endoscopic-assisted intraparenchymal hemorrhage evacuation	Potts, Jahromi	2020	Clinical neurology and neurosurgery		Go to article
Is the Gothic Arch a reliable radiographic landmark for migration percentage in children with cerebral palsy?	Caesar Wek	2020	Journal of Children's Orthopaedics		Go to article
PD-0435: Brainlab ExacTrac Dynamic – First pre-clinical validation of surface- and X-Ray positioning accuracy	V. Da Silva Mendes	2020	Radiotherapy and Oncology		Go to article
Functional MRI in Children: Current Clinical Applications	Guerin et al.	2020	Seminars in pediatric neurology		Go to article
Elastic Fusion Enables Fusion of Intraoperative Magnetic Resonance Imaging Data with Preoperative Neuronavigation Data	Negwer et al.	2020	World neurosurgery		Go to article



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Diffuse infiltrative pontine glioma biopsy in children with neuronavigation, frameless procedure: A single center experience of 10 cases	A. Joud	2020	Neurochirurgie		Go to article
Dosimetric Impact of Distortion Correction of MR Image Set for Cranial Stereotactic Radiation Treatments	R Sandhu	2020	American Association of Physicists in Medicine Virtual Meeting		Go to article
Effect of Distortion to Radiosurgery Treatment Plans for Brain Metastases	Nadir Kucuk	2020	Cureus		Go to article
Brainlab Spine SRS planning and verification, comparison with CyberKnife	C. Jones	2020	Radiotherapy and Oncology		Go to article
Improving tractography in brainstem cavernoma patients by distortion correction	Sebastian Ille	2020	DGNC 2020 Meeting Abstract		Go to article
Frequency of Large Intrafractional Target Motions During Spine Stereotactic Body Radiation Therapy	Jacqueline Wu	2020	Pract Radiat Oncol.		Go to article
Spinal navigation for posterior cervical and cervicothoracic instrumentation	Richter, Ploux D	2019	Operative Orthopadie Traumatologie		Go to article
Auf einem Gewebemodell basierende automatische Bildsegmentierung zur Konturierung von Risikoorganen in der Behandlungsplanung für spinale Metastasierung	Wittenstein et al.	2019	Strahlentherapie und Onkologie : Organ der Deutschen Rontgengesellschaft ... [et al]		Go to article
Augmented Reality in Transsphenoidal Surgery	Carl et al.	2019	World neurosurgery		Go to article
Use of Frameless Stereotactic Navigation System Combined with Intraoperative Magnetic Resonance Imaging and 5-Aminolevulinic Acid	Giordano et al.	2019	World neurosurgery		Go to article
The role of frameless stereotactic biopsy in contemporary neuro-oncology: molecular specifications and diagnostic yield in biopsied glioma patients	Mader et al.	2019	Journal of neuro-oncology		Go to article



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Frameless Stereotactic Navigation during Insular Glioma Resection using Fusion of Three-Dimensional Rotational Angiography and Magnetic Resonance Imaging	Dasenbrock et al.	2019	World neurosurgery		Go to article
Frameless stereotactic biopsy for precision neurosurgery: diagnostic value, safety, and accuracy	Sciortino et al.	2019	Acta neurochirurgica		Go to article
Brain Tumor-Enhancement Visualization and Morphometric Assessment: A Comparison of MPRAGE, SPACE, and VIBE MRI Techniques	Danieli et al.	2019	AJNR. American journal of neuroradiology		Go to article
Primary orbital reconstruction with selective laser melted core patient-specific implants: overview of 100 patients	Rana et al.	2019	The British journal of oral & maxillofacial surgery		Go to article
Combined Use of Diffusion Tractography and Advanced Intraoperative Imaging for Resection of Cervical Intramedullary Spinal Cord Neoplasms: A Case Series and Technical Note	Benjamin et al.	2019	Operative neurosurgery (Hagerstown, Md.)		Go to article
Standard navigation versus intraoperative computed tomography navigation in upper cervical spine trauma	Carl et al.	2019	International journal of computer assisted radiology and surgery		Go to article
Implementation of augmented reality support in spine surgery	Carl et al.	2019	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		Go to article
Minimal invasive percutaneous C1C2 fixation using an intraoperative 3D imaging-based navigation system on management of odontoid fractures	Meyer et al.	2019	World neurosurgery		Go to article
Augmented reality in intradural spinal tumor surgery	Carl et al.	2019	Acta neurochirurgica		Go to article



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Microscope-Based Augmented Reality in Degenerative Spine Surgery: Initial Experience	Carl et al.	2019	World neurosurgery		Go to article
Navigated 3-Dimensional Intraoperative Ultrasound for Spine Surgery	Saß et al.	2019	World neurosurgery		Go to article
Navigation Versus Fluoroscopy in Multilevel MIS Pedicle Screw Insertion: Separate Analysis of Exposure to Radiation of the Surgeon and of the Patients	Konieczny, Krauspe	2019	Clin Spine Surg (Clinical spine surgery)		Go to article
Is bony attachment necessary for dynamic reference frame in navigation-assisted minimally invasive lumbar spine fusion surgery?	Lin et al.	2019	Computer assisted surgery (Abingdon, England)		Go to article
Radiation exposure for the surgical team in a hybrid-operating room	Schuetze et al.	2019	Journal of robotic surgery		Go to article
Quantitative assessment of symmetry recovery in navigation-assisted surgical reduction of zygomaticomaxillary complex fractures	Bao et al.	2019	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery		Go to article
Application of Computer-Assisted Navigation System in Acute Zygomatic Fractures	Yang et al.	2019	Annals of plastic surgery		Go to article
Automatic Segmentation of the Subthalamic Nucleus: A Viable Option to Support Planning and Visualization of Patient-Specific Targeting in Deep Brain Stimulation	Reinacher et al.	2019	Operative Neurosurgery		Go to article
Understanding gamma ventral capsulotomy: Potential implications of diffusion tensor image tractography on target selectivity	Santos et al.	2019	Surgical neurology international		Go to article



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Superolateral medial forebrain bundle deep brain stimulation in major depression: a gateway trial	Coenen et al.	2019	Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology		Go to article
Adaptive hybrid surgery analysis (AHSA) for adjuvant gamma knife radiosurgery treatment of vestibular schwannoma residuals	Bartek et al.	2019	Clinical Neurology and Neurosurgery		Go to article
Radiation-induced vascular malformations in the brain, mimicking tumor in MRI-based treatment response assessment maps (TRAMs)	Guez et al.	2019	Clinical and Translational Radiation Oncology		Go to article
Single isocenter stereotactic radiosurgery for patients with multiple brain metastases: dosimetric comparison of VMAT and a dedicated DCAT planning tool	Hofmaier et al.	2019	Radiat Oncol (Radiation Oncology)		Go to article
A dosimetric analysis of a spine SBRT specific treatment planning system	Saenz et al.	2019	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)		Go to article
The impact of the three degrees-of-freedom fiducial marker-based setup compared to soft tissue-based setup in hypofractionated intensity-modulated radiotherapy for prostate cancer	Tanabe et al.	2019	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)		Go to article
Geometric planning in vertebral and pelvic complex surgery: sufficient number of evaluating parameters proving	Anna S. Kolesnikova	2019	SPIE		Go to article
Growth modulation in idiopathic angular knee deformities: is it predictable?	B Danino	2019	Bone& Joint publishing		Go to article
Improving the accuracy of digital templating: achieving success through stakeholder management	Hammad Parwaiz	2019	BMJ Open Qual		Go to article



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Preoperative Evaluation of Intramedullary Tibial Nail Measurements—A Review of the Literature and a New Technique Using Contralateral Radiographs and Digital Planning	Eran Keltz	2019	AAOS		Go to article
Subcutaneous Radiographic Measurement: A Marker to Evaluate Surgical Site Infection Risk in Elderly Hip Fracture Patients	Martí Bernaus	2019	JBJS		Go to article
Templating Hip Arthroplasty	Amro Alnahhal	2019	Open Access Maced J Med Sci.		Go to article
Reliable navigation registration in cranial and spine surgery based on intraoperative computed tomography	Carl et al.	2019	Neurosurgical focus		Go to article
EP-2055 Impact of patient-specific MRI distortion correction for stereotactic cranial target definition	Gevaert et al.	2019	Radiotherapy and Oncology		Go to article
Safety and Efficacy of Posterior Atlanto-Axial Stabilization Using Intraoperative Navigation System with Preoperative Computed Tomographic Scan	Fiorenza, Ascanio	2019	World neurosurgery		Go to article
Automatic image segmentation based on synthetic tissue model for delineating organs at risk in spinal metastasis treatment planning	Olaf Wittenstein	2019	Strahlenther Onkol.		Go to article
Feasibility and preliminary clinical results of linac-based Stereotactic Body Radiotherapy for spinal metastases using a dedicated contouring and planning system	Giaj-Levra et al.	2019	Radiation oncology (London, England)		Go to article
Evaluation of a novel software application for magnetic resonance distortion correction in cranial stereotactic radiosurgery	Calvo-Ortega JF	2019	Med Dosim.		Go to article
Comparison of Frame-Based Versus Frameless Intracranial Stereotactic Biopsy: Systematic Review and Meta-Analysis	Sanjay Dhawan	2019	World Neurosurg		Go to article



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Retrospective distortion correction of diffusion tensor imaging data by semi-elastic image fusion - Evaluation by means of anatomical landmarks	Gerhardt et al.	2019	Clinical neurology and neurosurgery		Go to article
Evaluation of a novel elastic registration algorithm for spinal imaging data: A pilot clinical study	Rashad et al.	2019	The international journal of medical robotics + computer assisted surgery: MRCAS		Go to article
Initial Experience Using Brainlab Elements Cranial SRS	CD Venencia	2019	AAPM Library		Go to article
EP-2101 Evaluation of the feasibility of performing markerless tracking for lung SBRT patients	T. Gevaert	2019	Radiotherapy and Oncology		Go to article
Preoperative 3-Dimensional Angiography Data and Intraoperative Real-Time Vascular Data Integrated in Microscope-Based Navigation by Automatic Patient Registration Applying Intraoperative Computed Tomography	Carl et al.	2018	World neurosurgery		Go to article
Flat Panel Detector Computed Tomography-Guided Placement of External Ventricular Drains Using the BrainLAB Headband and Precalibrated Disposable Stylet Instrument: A Cadaveric Feasibility Study	Feulner et al.	2018	World neurosurgery		Go to article
Navigation-Linked Heads-Up Display in Intracranial Surgery: Early Experience	Mascitelli et al.	2018	Operative neurosurgery (Hagerstown, Md.)		Go to article
Head-up display may facilitate safe keyhole surgery for cerebral aneurysm clipping	Toyooka et al.	2018	Journal of neurosurgery		Go to article
Optic Radiation Diffusion Tensor Imaging Tractography: An Alternative and Simple Technique for the Accurate Detection of Meyer's Loop	Bertani et al.	2018	World neurosurgery		Go to article
Intraoperative 3-dimensional cone beam computed tomographic imaging during reconstruction of the zygoma and orbit	Gander et al.	2018	Oral surgery, oral medicine, oral pathology and oral radiology		Go to article



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Semi-automatic tumour volume measurements on MR-Imaging using smartbrush® in oropharyngeal carcinomas; our experience in 5 patients	Lodder et al.	2018	Clinical otolaryngology : official journal of ENT-UK ; official journal of Netherlands Society for Oto-Rhino-Laryngology & Cervico-Facial Surgery		Go to article
Intraoperative Computed Tomography Versus 3D C-Arm Imaging for Navigated Spinal Instrumentation	Hecht et al.	2018	Spine		Go to article
Does Intraoperative Navigation Improve the Anatomical Reduction of Intracapsular Condylar Fractures?	Han et al.	2018	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons		Go to article
Digital Diagnosis and Treatment Program for Maxillofacial Fractures: A Retrospective Analysis of 626 Cases	Zeng et al.	2018	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons		Go to article
Surgical navigation improves reductions accuracy of unilateral complicated zygomaticomaxillary complex fractures: a randomized controlled trial	Zhang et al.	2018	Scientific Reports		Go to article
Efficacy of intraoperative ultrasonography in neurosurgical tumor resection	Sweeney et al.	2018	Journal of neurosurgery. Pediatrics		Go to article
Validation of diffusion tensor imaging tractography to visualize the dentatorubrothalamic tract for surgical planning	Nowacki et al.	2018	Journal of neurosurgery		Go to article
Early outcomes of stereoelectroencephalography followed by MR-guided laser interstitial thermal therapy: a paradigm for minimally invasive epilepsy surgery	Cobourn et al.	2018	Neurosurgical focus		Go to article



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Implantation of Depth Electrodes in Children Using VarioGuide® Frameless Navigation System: Technical Note	Budke et al.	2018	Operative Neurosurgery		Go to article
Implementation of Intraoperative Computed Tomography for Deep Brain Stimulation: Pitfalls and Optimization of Workflow, Accuracy, and Radiation Exposure	Carl et al.	2018	World neurosurgery		Go to article
Navigation-Supported Stereotaxy by Applying Intraoperative Computed Tomography	Carl et al.	2018	World neurosurgery		Go to article
Intraoperative computed tomography as reliable navigation registration device in 200 cranial procedures	Carl et al.	2018	Acta neurochirurgica		Go to article
Adaptive Hybrid Surgery: Paradigm Shift for Patient-centered Neurosurgery	Or Cohen-Inbar	2018	Rambam Maimonides Med J.		Go to article
Quality of life outcomes for brain metastasis patients treated with stereotactic radiosurgery: pre-procedural predictive factors from a prospective national registry	Sheehan et al.	2018	Journal of neurosurgery		Go to article
Planned Subtotal Resection of Vestibular Schwannoma Differs from the Ideal Radiosurgical Target Defined by Adaptive Hybrid Surgery	Sheppard et al.	2018	World neurosurgery		Go to article
A new technique for correction of leg length discrepancies in combination with complex axis deformities of the lower limb using a lengthening nail and a locking plate	C. N. Steiger	2018	J Child Orthop.		Go to article
Risk of patella baja after opening-wedge high tibial osteotomy	Tomohiko Murakami	2018	Sage Journal		Go to article
Robotic-arm assisted total knee arthroplasty has a learning curve of seven cases for integration into the surgical workflow but no learning curve effect for accuracy of implant positioning	Babar Kayani	2018	Knee Surg Sports Traumatol Arthrosc		Go to article
The 3-dot circle: A reliable method for safe and efficient digital templating of the acetabular component	Firas Arnaout	2018	J Orthop		Go to article



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First experience with the jump-starting robotic assistance device Cirq	Krieg, Meyer	2018	Neurosurgical focus		Go to article
Optic Radiation Diffusion Tensor Imaging Tractography. An Alternative and Simple Technique for the Accurate Detection of Meyer's Loop	Bertani et al.	2018	World neurosurgery		Go to article
Evaluation of a four-pi approach to stereotactic treatment planning in cranial SRT	J Robar	2018	Radiotherapy and Oncology		Go to article
Accuracy of Novel Computed Tomography-Guided Frameless Stereotactic Drilling and Catheter System in Human Cadavers	Sankey et al.	2017	World neurosurgery		Go to article
Accuracy of VarioGuide Frameless Stereotactic System Against Frame-Based Stereotaxy: Prospective, Randomized, Single-Center Study	Bradac et al.	2017	World neurosurgery		Go to article
Removal of recurrent intraorbital tumour using a system of augmented reality	Scolozzi, Bijlenga	2017	The British journal of oral & maxillofacial surgery		Go to article
Visualization of subcortical language pathways by diffusion tensor imaging fiber tracking based on rTMS language mapping	Negwer et al.	2017	Brain imaging and behavior		Go to article
Specific DTI seeding and diffusivity-analysis improve the quality and prognostic value of TMS-based deterministic DTI of the pyramidal tract	Rosenstock et al.	2017	NeuroImage. Clinical		Go to article
Spinal navigation for posterior instrumentation of C1-2 instability using a mobile intraoperative CT scanner	Czabanka et al.	2017	Journal of neurosurgery. Spine		Go to article
Total Navigation in Spine Surgery; A Concise Guide to Eliminate Fluoroscopy Using a Portable Intraoperative Computed Tomography 3-Dimensional Navigation System	Navarro-Ramirez et al.	2017	World neurosurgery		Go to article



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Comparison of minimally invasive spine surgery using intraoperative computed tomography integrated navigation, fluoroscopy, and conventional open surgery for lumbar spondylolisthesis: a prospective registry-based cohort study	Wu et al.	2017	The spine journal : official journal of the North American Spine Society		Go to article
Intraoperative navigation in complex head and neck resections: indications and limits	Catanzaro et al.	2017	International journal of computer assisted radiology and surgery		Go to article
Application of a computer-assisted surgical navigation system in temporomandibular joint ankylosis surgery: a retrospective study	He et al.	2017	International journal of oral and maxillofacial surgery		Go to article
Applications of 3D orbital computer-assisted surgery (CAS)	Scolozzi	2017	Journal of stomatology, oral and maxillofacial surgery		Go to article
Comparison of the Outcomes of Complex Orbital Fracture Repair with and without a Surgical Navigation System: A Prospective Cohort Study with Historical Controls	Zavattero et al.	2017	Plastic and reconstructive surgery		Go to article
Functional Magnetic Resonance Imaging (fMRI), Pre-intraoperative Tractography in Neurosurgery: The Experience of Sant' Andrea Rome University Hospital	D'Andrea et al.	2017	Acta neurochirurgica. Supplement		Go to article
Comparison of Online 6 Degree-of-Freedom Image Registration of Varian TrueBeam Cone-Beam CT and BrainLab ExacTrac X-Ray for Intracranial Radiosurgery	Li et al.	2017	Technology in Cancer Research & Treatment		Go to article
An evaluation of the BrainLAB 6D ExacTrac/Novalis Tx System for image-guided intracranial radiotherapy	Montgomery, Collins	2017	J Radiother Pract (Journal of Radiotherapy in Practice)		Go to article
A Systematic Analysis of 2 Monoisocentric Techniques for the Treatment of Multiple Brain Metastases	Narayanasamy et al.	2017	Technology in Cancer Research & Treatment		Go to article



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Submillimeter alignment of more than three contiguous vertebrae in spinal SRS/SBRT with 6-degree couch	Wang et al.	2017	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)		Go to article
Pre-Operative Planning of Total Hip Arthroplasty on Dysplastic Acetabuli	Dror Lakstein	2017	Sage Journal		Go to article
Radiographic templating of total hip arthroplasty for femoral neck fractures	Dror Lakstein	2017	International Orthopaedics		Go to article
The orthopaedic management of lower limb deformity in hypophosphataemic rickets	A Horn	2017	J Child Orthop.		Go to article
Margin of error for a frameless image guided radiosurgery system: Direct confirmation based on posttreatment MRI scans	Luo et al.	2017	Practical Radiation Oncology		Go to article
Truebeam Radiosurgery for the Treatment of Trigeminal Neuralgia: Preliminary Results at a Single Institution	Kerolus et al.	2017	Cureus		Go to article
Accuracy of CT-navigated pedicle screw positioning in the cervical and upper thoracic region with and without prior anterior surgery and ventral plating	Rienmüller et al.	2017	The Bone & Joint Journal		Go to article
Integrating Surgery and Radiosurgery: Our First Experiences with Adaptive Hybrid Surgery Analysis Software in Benign Skull Base Tumors	L. Schwyzer	2017	J Neurol Surg A Cent Eur Neurosurg		Go to article
Associations between clinical outcome and navigated transcranial magnetic stimulation characteristics in patients with motoreloquent brain lesions: a combined navigated transcranial magnetic stimulation-diffusion tensor imaging fiber tracking approach.	C. F. Freyschlag	2017	Brain Inform		Go to article
Preoperative prediction of language function by diffusion tensor imaging	C. F. Freyschlag	2017	Brain Inform		Go to article
Target location after deep cerebral biopsies using low-volume air injection in 75 patients. Results and technical note	Maria A Poca	2017	Acta Neurochir (Wien)		Go to article



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Progressive disease in glioblastoma: Benefits and limitations of semi-automated volumetry	Huber et al.	2017	PloS one		Go to article
Reliability of Semi-Automated Segmentations in Glioblastoma	Huber et al.	2017	Clinical neuroradiology		Go to article
Correlation between intraoperative ultrasound and postoperative MRI in pediatric tumor surgery	Smith et al.	2016	Journal of neurosurgery. Pediatrics		Go to article
Neuroendoscopic Intraventricular Biopsy in Children with Small Ventricles Using Frameless VarioGuide System	Avecillas-Chasin et al.	2016	World neurosurgery		Go to article
Multimodal Neuronavigation in Microsurgery Resection of BrainStem Tumors	Zhang et al.	2016	The Journal of craniofacial surgery		Go to article
Distinct displacements of the optic radiation based on tumor location revealed using preoperative diffusion tensor imaging	Faust, Vajkoczy	2016	Journal of neurosurgery		Go to article
Orbital volume analysis: validation of a semi-automatic software segmentation method	Jansen et al.	2016	International journal of computer assisted radiology and surgery		Go to article
Accuracy and workflow of navigated spinal instrumentation with the mobile Airo(®) CT scanner	Hecht et al.	2016	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		Go to article
Accuracy of computer-assisted iliosacral screw placement using a hybrid operating room	Richter et al.	2016	Injury		Go to article



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Three-Dimensional Accuracy of Virtual Planning and Surgical Navigation for Mandibular Reconstruction With Free Fibula Flap	Yu et al.	2016	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons		Go to article
A prospective multicenter study to compare the precision of posttraumatic internal orbital reconstruction with standard preformed and individualized orbital implants	Zimmerer et al.	2016	Journal of cranio-maxillofacial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery		Go to article
Testing the Reliability of BOLD-fMRI Motor Mapping in Patients with Cerebral Arteriovenous Malformations by Electric Cortical Stimulation and Surgery Outcomes	Wang et al.	2016	World neurosurgery		Go to article
Intraoperative high-field magnetic resonance imaging, multimodal neuronavigation, and intraoperative electrophysiological monitoring-guided surgery for treating supratentorial cavernomas	Li et al.	2016	Chronic diseases and translational medicine		Go to article
Evaluation of a dedicated brain metastases treatment planning optimization for radiosurgery: a new treatment paradigm?	Gevaert et al.	2016	Radiat Oncol (Radiation Oncology)		Go to article
Dosimetric validation for an automatic brain metastases planning software using single-isocenter dynamic conformal arcs	Liu et al.	2016	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)		Go to article
Dosimetric Study of Automatic Brain Metastases Planning in Comparison with Conventional Multi-Isocenter Dynamic Conformal Arc Therapy and Gamma Knife Radiosurgery for Multiple Brain Metastases	Mori et al.	2016	Cureus		Go to article
Inception of a national multidisciplinary registry for stereotactic radiosurgery	Sheehan et al.	2016	Journal of neurosurgery		Go to article



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Updates on preoperative planning, limb deformity analysis and surgical correction for the growing children	Eitan Segev	2016	J Child Orthop.		Go to article
3-D-navigierte Pedikelschrauben der Halswirbelsäule – Erfahrungen und Komplikationsanalyse	Schiffer et al.	2016	Zeitschrift für Orthopädie und Unfallchirurgie		Go to article
Optimizing ventriculoperitoneal shunt placement in the treatment of idiopathic intracranial hypertension: an analysis of neuroendoscopy, frameless stereotaxy, and intraoperative CT	Benjamin Yim	2016	Neurosurgical Focus		Go to article
Fully Automated Enhanced Tumor Compartmentalization: Man vs. Machine Reloaded	Porz et al.	2016	PloS one		Go to article
Early Biomarkers from Conventional and Delayed-Contrast MRI to Predict the Response to Bevacizumab in Recurrent High-Grade Gliomas	Daniels D et al.	2016	AJNR Am J Neuroradiol.		Go to article
Use of intraoperative Doppler ultrasound with neuronavigation to guide arteriovenous malformation resection: a pediatric case series	Walkden et al.	2015	Journal of neurosurgery. Pediatrics		Go to article
Augmented reality-assisted bypass surgery: embracing minimal invasiveness	Cabrilo et al.	2015	World neurosurgery		Go to article
Pre-operative image-based segmentation of the cranial nerves and blood vessels in microvascular decompression: Can we prevent unnecessary explorations?	Dolati et al.	2015	Clinical neurology and neurosurgery		Go to article
Patient specific implants (PSI) in reconstruction of orbital floor and wall fractures	Gander et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery		Go to article



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Development and evaluation of an automatic tumor segmentation tool: a comparison between automatic, semi-automatic and manual segmentation of mandibular odontogenic cysts and tumors	Rana et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery		Go to article
Development and first clinical application of automated virtual reconstruction of unilateral midface defects	Wagner et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery		Go to article
A Multicenter Experience With Image-Guided Surgical Navigation: Broadening Clinical Indications in Complex Craniomaxillofacial Surgery	Andrews et al.	2015	The Journal of craniofacial surgery		Go to article
Late Reconstruction of the Orbit With Patient-Specific Implants Using Computer-Aided Planning and Navigation	Baumann et al.	2015	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons		Go to article
Intraoperative navigation for single-splint two-jaw orthognathic surgery: From model to actual surgery	Chang et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery		Go to article



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Predictability in orbital reconstruction.	Dubois et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery		Go to article
Applications of Computer-Assisted Navigation for the Minimally Invasive Reduction of Isolated Zygomatic Arch Fractures	Li, Yang	2015	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons		Go to article
Three-dimensional computer-assisted orthognathic surgery: experience of 37 patients	Lin et al.	2015	Annals of plastic surgery		Go to article
The Use of Brainlab Navigation in Le Fort III Osteotomy	Wood et al.	2015	The Journal of craniofacial surgery		Go to article
Reconstruction of maxillary defects with free fibula flap assisted by computer techniques	Zhang et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery		Go to article
Delayed contrast extravasation MRI: a new paradigm in neuro-oncology	Zach et al.	2015	Neuro-Oncology		Go to article
Comparison of Hallux Valgus Deformity Evaluation on Printed Versus Digital X-Rays	Ehud Atoun	2015	Clinical Research on Foot & Ankle		Go to article
Diffusion tensor magnetic resonance imaging (DTI) tractography-guided deep brain stimulation in neuropathic pain	Coenen et al.	2015	Acta neurochirurgica		Go to article
Contemporary frameless intracranial biopsy techniques: Might variation in safety and efficacy be expected?	Iris S C Verploegh	2015	Acta Neurochir (Wien)		Go to article



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Navigated high frequency ultrasound: description of technique and clinical comparison with conventional intracranial ultrasound	Coburger et al.	2014	World neurosurgery		Go to article
Navigated versus non-navigated intraoperative ultrasound: is there any impact on the extent of resection of high-grade gliomas? A retrospective clinical analysis	Renovanz et al.	2014	Journal of neurological surgery. Part A, Central European neurosurgery		Go to article
Augmented reality in the surgery of cerebral aneurysms: a technical report	Cabrilo et al.	2014	Neurosurgery		Go to article
Augmented reality in the surgery of cerebral arteriovenous malformations: technique assessment and considerations	Cabrilo et al.	2014	Acta neurochirurgica		Go to article
Virtual surgery simulation in orbital wall reconstruction: integration of surgical navigation and stereolithographic models	Novelli et al.	2014	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery		Go to article
Three-dimensional simulation of the nasoalveolar cleft defect	Pálházi et al.	2014	The Cleft palate-craniofacial journal : official publication of the American Cleft Palate-Craniofacial Association		Go to article
Three-dimensional navigation is more accurate than two-dimensional navigation or conventional fluoroscopy for percutaneous sacroiliac screw fixation in the dysmorphic sacrum: a randomized multicenter study	Matityahu et al.	2014	Journal of orthopaedic trauma		Go to article
Intraoperative imaging in orbital and midface reconstruction	Wilde, Schramm	2014	Facial plastic surgery : FPS		Go to article
A comparison of acetate and digital templating for hip resurfacing	Daniel N Bracey	2014	Am J Orthop (Belle Mead NJ)		Go to article



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Digital planning for foot and ankle deformity correction: Evans osteotomy	Noman A Siddiqui	2014	J Foot Ankle Surg		Go to article
Radiographic Assessment of Lower Limb Lengthening in Achondroplastic Patients, Using the Ilizarov Frame: A 5-19 Year Follow up Study	Maria A Stefanou	2014	International Journal of Orthopaedics		Go to article
Catheter placement for lysis of spontaneous intracerebral hematomas: is a navigated stylet better than pointer-guided frameless stereotaxy for intrahematoma catheter positioning?	Vesna Malinova	2014	Translational Stroke Research		Go to article
The benefits of navigated intraoperative ultrasonography during resection of fourth ventricular tumors in children	El Beltagy, Atteya	2013	Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery		Go to article
The silent loss of neuronavigation accuracy: a systematic retrospective analysis of factors influencing the mismatch of frameless stereotactic systems in cranial neurosurgery	Stieglitz et al.	2013	Neurosurgery		Go to article
Frameless navigated biopsy with the BrainLAB® VarioGuide system: a technical note	Buchalla et al.	2013	Journal of neurological surgery. Part A, Central European neurosurgery		Go to article
Design and development of a virtual anatomic atlas of the human skull for automatic segmentation in computer-assisted surgery, preoperative planning, and navigation	Metzger et al.	2013	International journal of computer assisted radiology and surgery		Go to article
Advances in assessing the volume of odontogenic cysts and tumors in the mandible: a retrospective clinical trial	Stoetzer et al.	2013	Head & Face Medicine		Go to article
Comparison of navigated versus non-navigated pedicle screw placement in 260 patients and 1434 screws: screw accuracy, screw size, and the complexity of surgery	Luther et al.	2013	Journal of spinal disorders & techniques		Go to article



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Utilization of computed tomography image-guided navigation in orbit fracture repair	Andrews et al.	2013	The Laryngoscope		Go to article
Intrafraction variations in linac-based image-guided radiosurgery of intracranial lesions	Badakhshi et al.	2013	Cancer radiotherapie : journal de la Societe francaise de radiotherapie oncologique		Go to article
Evaluation of the clinical usefulness for using verification images during frameless radiosurgery	Gevaert et al.	2013	Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology		Go to article
Dosimetric impact of intrafraction motion during RapidArc stereotactic vertebral radiation therapy using flattened and flattening filter-free beams	Ong et al.	2013	International Journal of Radiation Oncology*Biology*Physics		Go to article
PO-0658 Adaptive hybrid surgery: feasibility study of computer-assisted multi-modality approach to skull base tumors	I.J. Barani	2013	Radiotherapy and Oncology		Go to article
Factors affecting diagnostic yield in needle biopsy for brain lesions	Georgios Tsermoulas	2013	British Journal of Neurosurgery		Go to article
Image-guided implantation of precalibrated catheters in the ICU: a feasibility study.	Naureen Keric	2013	Acta Neurochirurgica		Go to article
Intra-arterial intraoperative computed tomography angiography guided navigation: a new technique for localization of vascular pathology	Raza et al.	2012	Neurosurgery		Go to article
Importance of intraoperative magnetic resonance imaging for pediatric brain tumor surgery	Yousaf et al.	2012	Surgical neurology international		Go to article
Frameless image-guided stereotaxy with real-time visual feedback for brain biopsy	Gempt et al.	2012	Acta neurochirurgica		Go to article



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Application of intraoperative computed tomography with or without navigation system in surgical correction of spinal deformity: a preliminary result of 59 consecutive human cases	Cui et al.	2012	Spine		Go to article
Computer-assisted navigational surgery improves outcomes in orbital reconstructive surgery	Cai et al.	2012	The Journal of craniofacial surgery		Go to article
Orbitozygomatic fractures with enophthalmos: analysis of 64 cases treated late	He et al.	2012	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons		Go to article
Advances and innovations in computer-assisted head and neck oncologic surgery	Rana et al.	2012	The Journal of craniofacial surgery		Go to article
Study of ExacTrac X-ray 6D IGRT setup uncertainty for marker-based prostate IMRT treatment	Shi et al.	2012	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)		Go to article
Delayed contrast extravasation MRI for depicting tumor and non-tumoral tissues in primary and metastatic brain tumors	Zach et al.	2012	PLoS ONE		Go to article
The accuracy of automatic calibration of digital pelvic radiographs using two different scale markers: a comparative study	Jonathan A Baxter	2012	Hip Int		Go to article
Image guided navigation by intraoperative CT scan for cochlear implantation	Stelter et al.	2012	Computer aided surgery : official journal of the International Society for Computer Aided Surgery		Go to article
Individualized treatment of craniovertebral junction malformation guided by intraoperative computed tomography	Li et al.	2012	Journal of spinal disorders & techniques		Go to article



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Adaptive Hybrid Surgery: Feasibility of Planned Subtotal Resection of Benign Skull Base Tumors Followed by Radiosurgery to Minimize Morbidity Without Compromising Tumor Control	I.J. Barani	2012	IJROBP		Go to article
Frameless stereotactic targeting devices: technical features, targeting errors and clinical results	Gerlig Widmann	2012	Int J Med Robot		Go to article
Correlation of the extent of tumor volume resection and patient survival in surgery of glioblastoma multiforme with high-field intraoperative MRI guidance	Kuhnt et al.	2011	Neuro-oncology		Go to article
Intraoperative ultrasound in malformations of cortical development	Miller et al.	2011	Ultraschall in der Medizin (Stuttgart, Germany : 1980)		Go to article
Frameless stereotactic procedures in pediatric patients: safety and diagnostic efficacy	Parreño et al.	2011	Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery		Go to article
Accuracy of image-guided pedicle screw placement using intraoperative computed tomography-based navigation with automated referencing, part I: cervicothoracic spine	Scheufler et al.	2011	Neurosurgery		Go to article
Diagnostic and therapeutic aspects in the treatment of gunshot wounds of the viscerocranium	Gröbe et al.	2011	European journal of trauma and emergency surgery : official publication of the European Trauma Society		Go to article



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Surgical navigation in craniomaxillofacial surgery: expensive toy or useful tool? A classification of different indications	Lübbers et al.	2011	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons		Go to article
Intraoperative stereotactic navigation for reconstruction in zygomatic-orbital trauma	Nyachhyon, Kim	2011	JNMA; journal of the Nepal Medical Association		Go to article
"Mirroring" computational planning, navigation guidance system, and intraoperative mobile C-arm cone-beam computed tomography with flat-panel detector: a new rationale in primary and secondary treatment of midfacial fractures?	Scolozzi, Terzic	2011	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons		Go to article
The accuracy of digital templating in primary total knee replacements	S. Prasad	2011	Orthopaedic Proceedings		Go to article
Accuracy of image-guided pedicle screw placement using intraoperative computed tomography-based navigation with automated referencing. Part II: thoracolumbar spine	Scheufler et al.	2011	Neurosurgery		Go to article
Intraoperative tractography and motor evoked potential (MEP) monitoring in surgery for gliomas around the corticospinal tract	Maesawa et al.	2010	World neurosurgery		Go to article
Less invasive surgical correction of adult degenerative scoliosis, part I: technique and radiographic results	Scheufler et al.	2010	Neurosurgery		Go to article
Iso-C/3-dimensional neuronavigation versus conventional fluoroscopy for minimally invasive pedicle screw placement in lumbar fusion	Fraser et al.	2010	Minimally invasive neurosurgery : MIN		Go to article
Can computer-assisted surgery reduce the effective dose for spinal fusion and sacroiliac screw insertion?	Kraus et al.	2010	Clinical orthopaedics and related research		Go to article



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Frameless image-guided radiosurgery for initial treatment of typical trigeminal neuralgia	Chen et al.	2010	World neurosurgery		Go to article
Intra- and interobserver reliability analysis of digital radiographic measurements for pediatric orthopedic parameters using a novel PACS integrated computer software program	Eitan Segev	2010	J Child Orthop.		Go to article
Preoperative planning of total hip replacement using the TraumaCad™ system	Ely Liviu Steinberg	2010	Arch Orthop Trauma Surg		Go to article
Less invasive surgical correction of adult degenerative scoliosis, part I: technique and radiographic results.	Scheufler et al.	2010	Neurosurgery		Go to article
Intraoperative computed tomography and automated registration for image-guided cranial surgery	Eggers et al.	2009	Dento maxillo facial radiology		Go to article
Impact of intraoperative high-field magnetic resonance imaging guidance on glioma surgery: a prospective volumetric analysis	Hatiboglu et al.	2009	Neurosurgery		Go to article
Clinical indications for high-field 1.5 T intraoperative magnetic resonance imaging and neuro-navigation for neurosurgical procedures. Review of initial 100 cases	Maesawa et al.	2009	Neurologia medico-chirurgica		Go to article
VarioGuide: a new frameless image-guided stereotactic system--accuracy study and clinical assessment	Ringel et al.	2009	Neurosurgery		Go to article
Reproducibility and Accuracy of Templating Uncemented THA With Digital Radiographic and Digital TraumaCad Templating Software.	Panamoottil G Anil Kumar	2009	Orthopedics		Go to article
Planificación Preoperatoria Digital en Traumatología	Esmitt Ramirez	2009	Central University of Venezuela		Go to article
Automated registration of intraoperative CT image data for navigated skull base surgery	Eggers et al.	2008	Minimally invasive neurosurgery : MIN		Go to article
Image-guided radiosurgery for spinal tumors: methods, accuracy and patient intrafraction motion	Agazaryan et al.	2008	Phys. Med. Biol. (Physics in medicine and biology)		Go to article



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Dosimetric effect of translational and rotational errors for patients undergoing image-guided stereotactic body radiotherapy for spinal metastases	Wang et al.	2008	International Journal of Radiation Oncology*Biolog*Physics		Go to article
Is the image guidance of ultrasonography beneficial for neurosurgical routine?	Miller et al.	2007	Surgical neurology		Go to article
Image-guided ultrasonography for recurrent cystic gliomas	Enchev et al.	2006	Acta neurochirurgica		Go to article
Cervical Pedicle Screws Conventional Versus Computer-Assisted Placement of Cannulated Screws.	Richter M	2005	Spine		Go to article