BRAINLAB

Sharing Scientific Knowledge and Evidence

Clinical Literature Library

Title	Author	Year	Journal	Medical Areas	Link
Beyond CBCT: real-time motion management in spine and non-spine bone SBRT using stereoscopic X-rays and surface guidance	A Gutiérrez et al.	2026	Radiotherapy and Oncology	ExacTrac Dynamic, Spine Positioning & Monitoring	Go to article
Evaluation of Varian TrueBeam triggered kV imaging for fiducial tracking: Comparison with BrainLab ExacTrac Dynamicd	L Tan et al.	2026	Radiotherapy and Oncology	ExacTrac Dynamic, Prostate Positioning & Monitoring	Go to article
Two-center comparison of dedicated and general-purpose treatment planning for stereotactic body radiotherapy of spinal metastases with simultaneous integrated boost	Nachbar M et al.	2026	Z Med Phys.	Elements Spine SRS, Spine Dose Planning	Go to article
Geometric and dosimetric effects of an automated clustering and plan optimization pipeline for multiple brain metastasis radiosurgery	Yock AD et al.	2026	J Appl Clin Med Phys.	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
MRI distortion correction produces geometrically relevant shifts in cisternal trigeminal nerve localization: implications for gamma knife radiosurgery	Duzkalir AH et al.	2026	Neurochirurgie.	Cranial Contouring, Elements Distortion Correction Cranial, Elements Image Fusion, Elements SmartBrush, Functional Radiosurgery Contouring	Go to article
Optimizing Isocenter Accuracy in ExacTrac Dynamic®: Daily Verification and Quality Assurance for Reliable Patient Positioning	Poltorak M et al.	2026	Polish Journal of Medical Physics and Engineering	Cranial Positioning & Monitoring, ExacTrac Dynamic, ExacTrac Dynamic Surface	Go to article
Evaluation of an artificial intelligence-based tool for brain metastasis auto-detection: A comparison with physician review	Shah S et al.	2026	Journal of Radiosurgery & SBRT	Cranial Contouring, Elements AI Tumor Segmentation, MBM Contouring	Go to article
A geometric evaluation of an artificial intelligence-based segmentation tool for brain metastases in stereotactic radiosurgery	Xiao Z et al.	2026	Journal of Radiosurgery & SBRT	Cranial Contouring, Elements AI Tumor Segmentation, MBM Contouring	Go to article

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CT-based MRI distortion correction reveals systematic coordinate discrepancies in subthalamic nucleus deep brain stimulation planning	Duzkalir AH et al.	2026	Clin Neurol Neurosurg.	Elements Distortion Correction Cranial, Elements Image Fusion, Elements Trajectory Planning Cranial, Functional Radiosurgery Contouring	Go to article
Rapid commissioning of Brainlab Elements for SRS: end-to-end evaluation of Monte Carlo and pencil beam algorithm across homogeneous and heterogeneous phantom environments	Narayanan B et al.	2026	Front. Oncol.	Cranial Dose Planning, Elements Cranial SRS, Elements Multiple Brain Mets SRS, Elements Spine SRS, MBM Dose Planning, Spine Dose Planning	Go to article
Comparative assessment of kV imaging air kerma for intrafraction prostate fiducial monitoring using three clinical systems	Retif P et al.	2026	Phys Med.	ExacTrac Dynamic, Prostate Positioning & Monitoring	Go to article
Effects of intrafractional motion on targeting accuracy in frameless single-isocenter multi-target stereotactic radiosurgery	Grohmann M et al.	2026	Strahlenther Onkol.	Elements Multiple Brain Mets SRS, ExacTrac Dynamic, MBM Positioning & Monitoring	Go to article
Feasibility of a hybrid technique combining dynamic conformal and volumetric-modulated arcs for single-fraction stereotactic radiosurgery of multiple brain tumours: A clinical case study	Abdul-Hadi T et al.	2026	Cancer Radiother.	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Postoperative fractionated stereotactic radiotherapy for completely resected brain metastases with 25 Gy in five fractions: A single-center retrospective study	Maier S et al.	2026	Clinical and Translational Radiation Oncology	Elements Distortion Correction Cranial, ExacTrac Dynamic, MBM Positioning & Monitoring	Go to article
Long-Term Outcomes and Symptom Response Following Hypofractionated Stereotactic Radiotherapy (hSRT) for Intracranial Meningioma	Shah R et al.	2026	World Neurosurg.	Cranial Dose Planning, Cranial Positioning & Monitoring, Elements Cranial SRS, ExacTrac Dynamic	Go to article

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Linear Accelerator Mask-Based Radiosurgery for Trigeminal Neuralgia: Prospective Evaluation of 50 Patients	Rosselló A et al.	2026	World Neurosurg.	Elements Object Management, Elements Segmentation, ExacTrac Dynamic, Functional Radiosurgery Contouring, Functional Radiosurgery Dose Planning, Functional Radiosurgery Positioning & Monitoring	Go to article
Comparison of linac-based (BrainLab) single-isocenter dynamic conformal arc (DCA) and CyberKnife treatment planning techniques for stereotactic radiotherapy of multiple brain metastases	Olacak N et al.	2026	Radiation Physics and Chemistry.	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Evaluation of the surface-guided radiotherapy workflow accuracy and plausibility of deep inspiration breath hold technique implementation: A phantom study	Han SC et al.	2026	Radiation Physics and Chemistry.	Breast Positioning & Monitoring, ExacTrac Dynamic, ExacTrac Dynamic Surface	Go to article
Feasibility and utility of a tablet-based digital neurocognitive assessment following radiosurgery for brain metastases	Akdemir EY et al.	2026	Sci Rep.	MBM Treatment Assessment	Go to article
Assessing the technical capability of a room- and a gantry-mounted kV imaging device for intra-fractional fluoroscopy during stereotactic lung radiotherapy at a C-arm linear accelerator	Jungreuthmayer H et al.	2026	Physics and Imaging in Radiation Oncology	ExacTrac Dynamic, Lung Positioning & Monitoring	Go to article
Longitudinal remodeling of brain metastasis resection cavities after adjuvant gamma knife radiosurgery	Goulenko V et al.	2026	J Neurooncol.	Elements Contrast Clearance Analysis, Elements SmartBrush, MBM Contouring, MBM Treatment Assessment	Go to article
Periodic intrafraction image-guided focal dose-escalated stereotactic body radiotherapy for prostate carcinoma on a standard linear accelerator	Serpa M et al.	2026	Physics and Imaging in Radiation Oncology	ExacTrac Dynamic, Prostate Positioning & Monitoring	Go to article

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Independent Six-degree-of-freedom Accuracy Evaluation of BrainLab ExacTrac Dynamic and Varian CBCT Systems in Stereotactic Radiotherapy Using a Couch-based Reference	Yalman D et al.	2026	Turk J Oncol.	Cranial Positioning & Monitoring, Cranial Vascular Positioning & Monitoring, ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring, MBM Positioning & Monitoring	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).	ExacTrac Dynamic, Spine Positioning & Monitoring	Go to article
Improvement in positional accuracy with integrated surface- and X-ray imaging for intracranial stereotactic radiosurgery patients	Kjellström C et al.	2026	Physics and Imaging in Radiation Oncology	Cranial Positioning & Monitoring, ExacTrac Dynamic, MBM Positioning & Monitoring	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.	ExacTrac Dynamic, MBM Dose Planning, MBM Positioning & Monitoring	Go to article
Virtual phantom methodology for assessment of MRI distortion correction in high-precision stereotactic radiosurgery treatment planning	Belloeil-Marrane T et al.	2025	Front Oncol.	Cranial Contouring, Elements Distortion Correction Cranial, Elements Image Fusion, MBM Contouring	Go to article
Enhancing patient positioning precision: a comparative analysis of surface-guided radiation therapy systems	Ohno T et al.	2025	Radiol Phys Technol.	Breast SBRT, ExacTrac Dynamic, ExacTrac Dynamic Surface, Lung SBRT	Go to article
High-Dose Stereotactic Re-Irradiation of Recurrent High-Grade Gliomas: Clinical Outcome and Experience with AI-Based Target Volume Simulation	Früh A et al.	2025	Cancers (Basel).	Cranial Contouring, Elements AI Tumor Segmentation	Go to article
Stereotactic Radiosurgery for Patients With Five or More Brain Metastases: Retrospective Single-Institution Analysis of Prognostic Factors	Milano MT et al.	2025	Cureus.	Elements Distortion Correction Cranial, Elements Multiple Brain Mets SRS, ExacTrac Dynamic, MBM Dose Planning, MBM Positioning & Monitoring	Go to article

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Local Control After Single-Isocenter Dynamic Conformal Arc SRS for Brain Metastases	Blok M et al.	2025	Cancers (Basel).	Elements Multiple Brain Mets SRS, ExacTrac Dynamic, MBM Dose Planning, MBM Positioning & Monitoring	Go to article
Bilateral Medial Thalamotomy and Anterior Cingulotomy With Gamma Knife Radiosurgery for Refractory Pain: A Case Report	Torres Monterrosa J et al.	2025	Cureus.	Elements Fibertracking, Elements Segmentation, Functional Radiosurgery Contouring	Go to article
Individualised connectomic-guided radiosurgical thalamotomy for chronic pain	Lovo E et al.	2025	Br J Neurosurg.	Elements Distortion Correction Cranial, Elements Fibertracking, Elements Segmentation, Functional Radiosurgery Contouring	Go to article
Connectome Analysis of the Nucleus Accumbens: Refining Radiosurgical Targeting for Addictive Disorders	Chang JE et al.	2025	Cureus.	Elements Fibertracking, Elements Segmentation, Functional Radiosurgery Contouring	Go to article
Evaluation of two treatment planning systems for single isocenter multiple metastases stereotactic radiosurgery treatment planning and delivery	Tichacek CJ et al.	2025	Med Dosim.	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Five-year evaluation of linear accelerator-based SRS platform isocentricity	Walter YA et al.	2025	J Appl Clin Med Phys.	Cranial Positioning & Monitoring, ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring, MBM Positioning & Monitoring	Go to article
Commissioning of a combined stereoscopic x-ray and surface guided radiotherapy system for performing breath hold gated lung radiotherapy	Baltz GC, Kirsner SM	2025	J Appl Clin Med Phys.	ExacTrac Dynamic, ExacTrac Dynamic Surface, Lung Positioning & Monitoring	Go to article

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Workflow evaluation of surface-guided patient preposition in radiotherapy	Skaarup M, Jensen NKG	2025	Physics and Imaging in Radiation Oncology	Breast Positioning & Monitoring, Cranial Positioning & Monitoring, ExacTrac Dynamic, ExacTrac Dynamic Surface, Lung Positioning & Monitoring, MBM Positioning & Monitoring, Prostate Positioning & Monitoring	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.	ExacTrac Dynamic, Prostate Positioning & Monitoring	Go to article
A surgeon-controlled mode of robotic assistance with posterolateral approach helps achieve highly medialized cervical pedicle screw placement to avoid vertebral artery injury	Tani Y et al.	2025	European Spine Journal	Cirq, Spinal Navigation	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.	MBM SRS Registry, Quentry	Go to article
Producing high quality cranial SRS plans with 4Pi planning technique in a commercial clinical solution	Narayanasamy G et al.	2025	J Appl Clin Med Phys.	Cranial Dose Planning, Elements Cranial SRS	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 R et al.	2025	Acta Neurochirurgica	Cranial Planning, Elements Fibertracking, Elements SmartBrush	Go to article
Brainshift correction using navigated intraoperative ultrasound informs intraoperative decision-making during glioma surgery	Rai A et al.	2025	Acta Neurochirurgica	Cranial Intraoperative Imaging, Elements Fibertracking, Elements SmartBrush, Kick	Go to article
Integrating a novel tablet-based digital neurocognitive assessment tool in brain metastases patients	Akdemir EY et al.	2025	J Neurooncol.	Cranial Treatment Assessment, MBM Treatment Assessment	Go to article

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Commissioning of a reference beam model-based Monte Carlo dose calculation algorithm for cranial stereotactic radiosurgery	Walter YA et al.	2025	Phys Med.	Cranial Dose Planning, Elements Cranial SRS, MBM Dose Planning, Spine Dose Planning	Go to article
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.	Elements Multiple Brain Mets SRS, MBM Dose Planning, MBM Positioning & Monitoring	Go to article
Evaluation of an updated pencil beam algorithm for enhanced dosimetric accuracy in stereotactic radiotherapy	Retif P et al.	2025	Phys Med.	Cranial Dose Planning, Elements Cranial SRS, MBM Dose Planning	Go to article
Quality of life after stereotactic radiosurgery for brain metastasis: an assessment from a prospective national registry	Pham DQ et al.	2025	J Neurooncol.	MBM SRS Registry, Quentry	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.	Cranial Treatment Assessment, Elements Contrast Clearance Analysis, MBM Treatment Assessment	Go to article
Evaluation of MRI technologies for surgical spine planning and navigation	Rommelspacher Y et al.	2025	European Spine Journal	Elements Image Fusion, Spinal Navigation, Spinal Planning	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.	ExacTrac Dynamic, MBM Dose Planning	Go to article
Use of a virtual phantom to assess the capability of a treatment planning system to perform magnetic resonance image distortion correction	Diaz Moreno RM et al.	2025	Phys Eng Sci Med.	Elements Distortion Correction Cranial, MBM Contouring	Go to article
Effect of prescription isodose line on tissue sparing in linear accelerator-based stereotactic radiosurgery treating multiple brain metastases using dynamic conformal arcs	Walter YA et al.	2024	J Appl Clin Med Phys.	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article

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Five-year evaluation of linear accelerator-based SRS platform isocentricity	Walter YA et al.	2024	J Appl Clin Med Phys.	ExacTrac Dynamic, MBM Positioning & Monitoring	Go to article
Automatic Image Registration Provides Superior Accuracy Compared with Surface Matching in Cranial Navigation	Frisk H et al.	2024	Sensors (Basel, Switzerland)	Cranial Navigation, Cranial Patient Registration, Elements Image Fusion	Go to article
Impact of MLC error on dose distribution in SRS treatment of single-isocenter multiple brain metastases: Comparison between DCAT and VMAT techniques	Katayama H et al.	2024	Reports of Practical Oncology and Radiotherapy	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Intraoperative visualization of cerebral aneurysms using navigated 3D-ultrasound power-Doppler angiography	Šteňo A et al.	2024	Acta neurochirurgica	Cranial Intraoperative Imaging, Curve	Go to article
Hybrid-3D robotic suite in spine and trauma surgery - experiences in 210 patients	Haida DM et al.	2024	Journal of Orthopaedic Surgery and Research	Buzz, Cirq, Elements Viewer 3D, Loop-X, Robotic Suite, Spinal Intraoperative Imaging, Spinal Navigation, Spinal Patient Registration, Spinal Planning	Go to article
Imaging-Guided Subthalamic Nucleus Deep Brain Stimulation Programming for Parkinson Disease: A Real-Life Pilot Study	Aubignat M et al.	2024	Neurology. Clinical practice	DBS Planning	Go to article
Lesioning the Brain-From Serendipity to Science	Sugrue LP et al.	2024	JAMA Neurology	Elements Fibertracking, MR-guided Focused Ultrasound (MRgFUS)	Go to article
Image-guided programming deep brain stimulation improves clinical outcomes in patients with Parkinson's disease	Torres V et al.	2024	NPJ Parkinson's disease	DBS Planning, DBS Postop Review & Programming	Go to article
The Use of Image Guided Programming to Improve Deep Brain Stimulation Workflows with Directional Leads in Parkinson's Disease	Rolland AS et al.	2024	Journal of Parkinson's disease	DBS Planning, DBS Postop Review & Programming	Go to article

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Surgical Navigation and CAD-CAM-Designed PEEK Prosthesis for the Surgical treatment of facial intraosseous vascular anomalies.	Dean A et al.	2024	Journal of Clinical Medicine	CMF Navigation, CMF Planning, Elements Object Management	Go to article
Early experience with an artificial intelligence-based module for brain metastasis detection and segmentation	Madhugiri VS, Prasad D	2024	Journal of Neuro-Oncology	Cranial Contouring, Elements AI Tumor Segmentation	Go to article
Intraoperative cone-beam computed tomography for catheter placement verification in pediatric hydrocephalus: technical note - PubMed (nih.gov)	Krause M et al.	2024	Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery	Cranial Intraoperative Imaging, Cranial Navigation, Cranial Patient Registration, Loop-X	Go to article
Platzierung von Pedikelschrauben mit einem Augmented-Reality-Head-Mounted-Display in einem Schweinemodell	Frisk H et al.	2024	JOVE JOURNAL Medizin	Loop-X, Spinal Navigation, Spinal Planning	Go to article
Technique, Safety, and Accuracy Assessment of Percutaneous Pedicle Screw Placement Utilizing Computer-Assisted Navigation in Lateral Decubitus Single-Position Surgery	Calek AK et al.	2024	International Journal of Spine Surgery	Spinal Navigation	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)	de Souza Lima R et al.	2024	World Neurosurgery	Cirq, Spinal Navigation	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.	Elements Distortion Correction Cranial, MBM Contouring	Go to article
Streamlining streamlines: Probabilistic versus deterministic tractography algorithms in two CE marked software packages - ScienceDirect	Fitzpatrick J et al.	2024	Physica Medica	Cranial Planning, Elements Fibertracking	Go to article
Navigated Intraoperative Ultrasound Offers Effective and Efficient Real-Time Analysis of Intracranial Tumor Resection and Brain Shift - PubMed (nih.gov)	West TR et al.	2024	Operative neurosurgery (Hagerstown, Md.)	Cranial Navigation, Cranial Patient Registration, Elements SmartBrush	Go to article
Navigated intraoperative ultrasound in pediatric brain tumors - PubMed (nih.gov)	Klein Gunnewiek K et al.	2024	Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery	Cranial Navigation, Elements SmartBrush	Go to article

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Comparison of Cervical Pedicle Screw Placement Accuracy With Robotic Guidance System Versus Image Guidance System Using Propensity Score Matching	Yamamoto Y et al.	2024	Clinical spine surgery	Cirq, Curve, Spinal Navigation	Go to article
Enabling Navigation and Augmented Reality in the Sitting Position in Posterior Fossa Surgery Using Intraoperative Ultrasound	Bopp MHA et al.	2024	Cancers	Cranial Intraoperative Imaging, Elements Image Fusion, Elements SmartBrush	Go to article
Augmented Reality in Spine Surgery: A Case Study of Atlantoaxial Instrumentation in Os Odontoideum	Li C-R et al.	2024	Medicina	Curve, Spinal Navigation	Go to article
The Importance of Planning Ahead: A Three-Dimensional Analysis of the Novel Trans-Facet Corridor for Posterior Lumbar Interbody Fusion Using Segmentation Technology	Tabarestani TQ et al.	2024	World neurosurgery	Elements Curvature Correction Spine, Elements SmartBrush Spine, Spinal Navigation, Spinal Planning	Go to article
Combined use of 3D printing and mixed reality technology for neurosurgical training: getting ready for brain surgery	Jeising S et al.	2024	Neurosurgical focus	Cranial Planning	Go to article
Mixed reality compared to the traditional ex cathedra format for neuroanatomy learning: the value of a three-dimensional virtual environment to better understand the real world	Sandralegar A et al.	2024	Neurosurgical focus	Cranial Planning, Elements Fibertracking, Mixed Reality Viewer	Go to article
Single isocenter dynamic conformal arcs-based radiosurgery for brain metastases: Dosimetric comparison with Cyberknife and clinical investigation	Oshiro Y et al.	2024	Technical Innovations & Patient Support in Radiation Oncology	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Effect of prescription isodose line on tissue sparing in linear accelerator-based stereotactic radiosurgery treating multiple brain metastases using dynamic conformal arcs	Walter YA et al.	2024	J Appl Clin Med Phys.	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
The NeuroPoint alliance SRS & tumor QOD registries	Sheehan JP et al.	2024	J Neurooncol.	MBM SRS Registry, Quentry	Go to article
MRI Treatment Response Assessment Maps (TRAMs) for differentiating recurrent glioblastoma from radiation necrosis	Müller SJ et al.	2024	J Neurooncol.	Cranial Treatment Assessment, Elements Contrast Clearance Analysis	Go to article

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Intrafractional motion detection for spine SBRT via X-ray imaging using ExacTrac Dynamic	Muecke J et al.	2024	Clinical and Translational Radiation Oncology	ExacTrac Dynamic, Spine Positioning & Monitoring	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 S et al.	2024	Cancers	Elements Contrast Clearance Analysis, MBM Treatment Assessment	Go to article
Assessing the impact of distortion correction on Gamma Knife radiosurgery for multiple metastasis: Volumetric and dosimetric analysis	Samanci Y et al.	2024	Brain and Spine	Cranial Contouring, Elements Distortion Correction Cranial	Go to article
Using Augmented Reality Technology to Optimize Transfacet Lumbar Interbody Fusion: A Case Report	Bardeesi A et al.	2024	JCM (Journal of Clinical Medicine)	Elements Curvature Correction Spine, Elements SmartBrush Spine, Spinal Navigation	Go to article
Automatic image registration on intraoperative CBCT compared to Surface Matching registration on preoperative CT for spinal navigation: accuracy and workflow	Frisk H et al.	2024	International journal of computer assisted radiology and surgery	Spinal Intraoperative Imaging, Spinal Navigation, Spinal Patient Registration	Go to article
Improving the efficiency of single-isocenter multiple metastases stereotactic radiosurgery treatment	Wyatt J et al.	2024	Advances in Radiation Oncology	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Intraoperative Cone-Beam Computed Tomography Navigation Versus 2-Dimensional Fluoroscopy in Single-Level Lumbar Spinal Fusion: A Comparative Analysis	Vadalà G et al.	2024	Neurospine	Elements Spine SRS, Loop-X, Spinal Imaging, Spinal Intraoperative Imaging, Spinal Planning	Go to article
Enhancing outcomes in deep brain stimulation: a comparative study of direct targeting using 7T versus 3T MRI	Middlebrooks EH et al.	2024	Journal of neurosurgery	DBS Analytics, DBS Planning, Elements Distortion Correction Cranial, Elements Image Fusion	Go to article
Connectivity-based segmentation of the thalamic motor region for deep brain stimulation in essential tremor: A comparison of deterministic and probabilistic tractography	Tsolaki E et al.	2024	NeuroImage: Clinical	DBS Planning, Elements Fibertracking, Elements Object Management, Elements Segmentation	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.	Cranial Treatment Assessment, Elements Contrast Clearance Analysis, MBM Treatment Assessment	Go to article
What effective technique to differentiate radiation brain necrosis from a tumor progression in patients treated with radiation: A monocentric retrospective study combining the MRI TRAMs technique and the (18F)-dopa PET/CT	Lakehayli Z et al.	2023	Cancer Radiother.	Elements Contrast Clearance Analysis, MBM Treatment Assessment	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 T et al.	2023	Brain stimulation	DBS Planning, DBS Postop Review & Programming	Go to article
Cirq® robotic assistance for percutaneous kyphoplasty of C1: report on feasibility	Meyer M et al.	2023	Acta neurochirurgica	Cirq, Spinal Navigation	Go to article
Initial End-to-End testing of the ExacTrac Dynamic Deep Inspiration Breath Hold workflow using a breath hold breast phantom	Goodall S, Rampant PL	2023	Physical and Engineering Sciences in Medicine	Breast Positioning & Monitoring, Cranial Positioning & Monitoring, ExacTrac Dynamic	Go to article
Pinless Electromagnetic Neuronavigation During Awake Craniotomies: Technical Pearls, Pitfalls, and Nuances	Harwick E et al.	2023	World Neurosurgery	Cranial Navigation	Go to article
Cochlear sparing in LINAC-based radiosurgery for vestibular schwannoma: a dosimetric comparison of dynamic conformal arc, IMRT and VMAT treatment plans	Khong J et al.	2023	Radiat Oncol.	Cranial Dose Planning, Elements Cranial SRS	Go to article
Cirq® robotic assistance for thoracolumbar pedicle screw placement – feasibility, accuracy, and safety	Gabrovsky N et al.	2023	Brain and Spine	Cirq, Spinal Navigation	Go to article
Simultaneous Anterior Posterior Approach for Single-Position Lateral Lumbar Interbody Fusion with Robotic Assistance: Technical Guidelines and Early Outcomes	Ghenbot Y et al.	2023	World neurosurgery	Cirq, Spinal Navigation	Go to article

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Automatic rigid image Fusion of preoperative MR and intraoperative US acquired after craniotomy	Mazzucchi E et al.	2023	Cancer Imaging	Cranial Intraoperative Imaging, Cranial Navigation, Elements Image Fusion	Go to article
A sub-analysis of multi-center planning radiosurgery for intracranial metastases through automation (MC-PRIMA) comparing UK and international centers	Chan MKH	2023	Medical Engineering and Physics	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Evaluation of a dedicated software for semi-automated VMAT planning of spine Stereotactic Body Radiotherapy (SBRT)	Dupuis P et al.	2023	Phys Med.	Elements Spine SRS, Spine Dose Planning	Go to article
Every-other-day vs once-a-week urethra-sparing prostate SBRT: 5-year results of a randomized phase II trial	Zilli T et al.	2023	Int J Radiat Oncol Biol Phys.	ExacTrac Dynamic, Prostate Positioning & Monitoring	Go to article
Dosimetric Effects of Dynamic Jaw Tracking and Collimator Angle Optimization in Non-Coplanar Cranial Arc Radiotherapy	Knill C et al.	2023	Med Dosim.	Cranial Dose Planning, Elements Cranial SRS	Go to article
Navigation-guided resection of locally advanced midface malignancies. Does it improve the safety of oncologic resection?	Ranz-Colio Á et al.	2023	Oral oncology	CMF Navigation	Go to article
Commissioning and validation of a Monte Carlo algorithm for spine stereotactic radiosurgery	Knill C et al.	2023	J Appl Clin Med Phys.	Elements Spine SRS, Spine Dose Planning	Go to article
Navigated, percutaneous, three-step technique for lumbar and sacral screw placement: a novel, minimally invasive, and maximally safe strategy	La Rocca G et al.	2023	Journal of orthopaedics and traumatology	Spinal Navigation	Go to article
Robotic alignment system Cirq (Brainlab) for navigated brain tumor biopsies in children	van Baarsen KM et al.	2023	Child's nervous system	Cirq, Cranial Navigation	Go to article
Dynamic intrafractional position monitoring with implanted fiducial markers for enhanced accuracy in radiotherapy of prostate cancer	Mangesius J et al.	2023	Phys Eng Sci Med.	ExacTrac Dynamic, Prostate Positioning & Monitoring	Go to article

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Gantry triggered X-ray verification during single-isocenter stereotactic radiosurgery: Increased certainty for a no-margin strategy	Gutiérrez A et al.	2023	Radiother Oncol.	ExacTrac Dynamic, MBM Positioning & Monitoring	Go to article
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 et al.	2023	BMC Cancer.	Cranial Positioning & Monitoring, ExacTrac Dynamic	Go to article
Preoperative tractography algorithm for safe resection of tumors located in the descending motor pathways zone	Ordóñez-Rubiano EG et al.	2023	Surgical neurology international	Cranial Navigation, Cranial Planning, Elements Fibertracking, Elements SmartBrush	Go to article
Stereotactic radiosurgery in the management of non-small cell lung cancer brain metastases: a prospective study using the NeuroPoint Alliance Stereotactic Radiosurgery Registry	Michalopoulos GD et al.	2023	J Neurosurg.	MBM SRS Registry, Quentry	Go to article
ExacTrac X-Ray 6D Imaging During Stereotactic Body Radiation Therapy of Spinal and Nonspinal Metastases	Hadj Henni A et al.	2023	Technol Cancer Res Treat.	ExacTrac Dynamic, Spine Positioning & Monitoring	Go to article
Clinical experience of intra-fractional motion monitoring of patients under head and neck radiotherapy using ExacTrac Dynamic system	Chow VUY et al.	2023	Advances in Radiation Oncology	Cranial Positioning & Monitoring, ExacTrac Dynamic, ExacTrac Dynamic Surface	Go to article
Intraoperative Navigated Three-Dimensional Ultrasound Guidance Improves Resection in Gliomas Compared with Standard Two-Dimensional Ultrasound-Results from a Comparative Cohort Study	Moiyadi A et al.	2023	World neurosurgery	Cranial Intraoperative Imaging	Go to article
Comparison of patient setup accuracy for optical surface-guided and X-ray-guided imaging with respect to the impact on intracranial stereotactic radiotherapy	Schöpe M et al.	2023	Strahlenther Onkol.	ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring	Go to article
Evaluation of PTV margins and plan robustness for single isocentre multiple target stereotactic radiosurgery	Lam CHM et al.	2023	Phys Med.	ExacTrac Dynamic, MBM Dose Planning	Go to article

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Accuracy of augmented reality-guided drainage versus stereotactic and conventional puncture in an intracerebral hemorrhage phantom model	Demerath T et al.	2023	Journal of neurointerventional surgery	Cranial Planning, Elements Trajectory Planning Cranial, Magic Leap	Go to article
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 et al.	2023	Int J Radiat Oncol Biol Phys.	ExacTrac Dynamic, Prostate Positioning & Monitoring	Go to article
Using Novel Segmentation Technology to Define Safe Corridors for Minimally Invasive Posterior Lumbar Interbody Fusion	Tabarestani TQ et al.	2023	Operative Neurosurgery	Elements SmartBrush, Spinal Navigation	Go to article
Advantages of computed tomography-based navigation in clipping distal anterior cerebral artery aneurysms: a retrospective cohort study	Han S et al.	2023	Quantitative imaging in medicine and surgery	Cranial Navigation, Elements Stereotaxy	Go to article
Predicting the need for cerebrospinal fluid shunt implantation after spontaneous intracerebral hemorrhage: a challenging task	Khalaveh F et al.	2023	Frontiers in neurology	Cranial Planning, Elements SmartBrush	Go to article
Impact on Brain Metastasis Survival after Recurrence Diagnose by Contrast Clearance Analysis	Goulenko V et al.	2023	Cureus	Elements Contrast Clearance Analysis, MBM Treatment Assessment	Go to article
Mixed Reality as a Teaching Tool for Medical Students in Neurosurgery	Silvero Isidre A et al.	2023	Medicina	Cranial Planning	Go to article
Usage of Object Matching Algorithms Combined with Mixed Reality for Enhanced Decision Making in Orbital Reconstruction-A Technical Note	Wilkat M et al.	2023	Journal of personalized medicine	CMF Planning, Magic Leap	Go to article
A New Approach to Virtual Occlusion in Orthognathic Surgery Planning Using Mixed Reality-A Technical Note and Review of the Literature	Wilkat M et al.	2023	Journal of personalized medicine	CMF Planning	Go to article
Stereoscopic X-ray image and thermo-optical surface guidance for breast cancer radiotherapy in deep inspiration breath-hold	Buschmann M et al.	2023	Strahlenther Onkol.	Breast Positioning & Monitoring, ExacTrac Dynamic	Go to article

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PO-1883 Markerless SBRT for lung treatment using ExacTrac Dynamic: a feasibility study	Gevaert T et al.	2023	Radiotherapy and Oncology	ExacTrac Dynamic, Lung Positioning & Monitoring	Go to article
PO-1884 Clinical implementation of ExacTrac Dynamic DIBH for left sided breast patients	Gevaert T et al.	2023	Radiotherapy and Oncology	Breast Positioning & Monitoring, ExacTrac Dynamic	Go to article
PO-1909 Clinical evaluation of Exactrac Dynamic surface guided pre-positioning system for cranial treatments	Alonso Muriedas J et al.	2023	Radiotherapy and Oncology	ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring	Go to article
Ten-step minimally invasive slalom unilateral laminotomy for bilateral decompression (sULBD) with navigation	Adelhoefer SJ et al.	2023	BMC musculoskeletal disorders	Spinal Navigation	Go to article
Radiation doses and accuracy of navigated pedicle screw placement in cervical and thoracic spine surgery: a comparison of sliding gantry CT and mobile cone-beam CT in a homogeneous cohort	Baumgart L et al.	2023	Journal of neurosurgery	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Targeting Accuracy of the Leksell Vantage Stereotactic System for Deep Brain Stimulation Surgery: A Retrospective Review	Phillips KR et al.	2023	Oper Neurosurg (Hagerstown)	Cranial Intraoperative Imaging, DBS Planning, Elements Image Fusion, Elements Segmentation, Elements Stereotaxy	Go to article
Intraoperative Local Field Potential Beta Power and Three-Dimensional Neuroimaging Mapping Predict Long-Term Clinical Response to Deep Brain Stimulation in Parkinson Disease: A Retrospective Study	di Biase L et al.	2023	Neuromodulation	DBS Planning, DBS Postop Review & Programming, Elements Segmentation	Go to article
Technical Note: Advantages of a 2-Room Intraoperative 3-Tesla Magnetic Resonance Imaging Operating Suite for Performing Laser Interstitial Thermal Therapy in Pediatric Epilepsy and Tumor Surgery	Tomschik M et al.	2023	World Neurosurg	Cranial Intraoperative Imaging, Cranial Navigation, MR-guided Laser Interstitial Thermal Therapy (LITT)	Go to article
Accuracy and Utility of Frameless Stereotactic Placement of Stereoelectroencephalography Electrodes	Brimley C, Shimony N	2023	World Neurosurg.	Cranial Patient Registration, Elements Stereotaxy, sEEG Preop Imaging	Go to article

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Radiofrequency ablation of the pallidothalamic tract and ventral intermediate nucleus for dystonic tremor through the parietal approach	Horisawa S et al.	2023	Surgical Neurology International	Elements Segmentation, Elements Stereotaxy, Functional and Stereotactic Surgery	Go to article
Deep Brain Stimulation Lead Localization Variability Comparing Intraoperative MRI Versus Postoperative Computed Tomography	Yearley AG et al.	2023	Operative neurosurgery (Hagerstown, Md.)	DBS Intraop-Imaging, DBS Planning, Elements Image Fusion	Go to article
Surgical planning, histopathology findings and postoperative outcome in MR-negative extra-temporal epilepsy using intracranial EEG, functional imaging, magnetoencephalography, neuronavigation and intraoperative MRI	Maslarova A et al.	2023	Clinical neurology and neurosurgery	Cranial Navigation, Elements BOLD MRI Mapping, Elements Stereotaxy, post sEEG resection planning, sEEG Planning, sEEG Preop Imaging	Go to article
Airo® navigation versus freehand fluoroscopy technique: A comparative study of accuracy and radiological exposure for thoracolumbar screws placement	Chatelain LS et al.	2023	Neurochirurgie	Spinal Navigation	Go to article
Intra-operative applications of augmented reality in glioma surgery: a systematic review	Ragnhildstveit A et al.	2023	Frontiers in surgery	Cranial Navigation	Go to article
Intraoperative computed tomography-guided navigation for implant anchorage in spine surgery	Kothe R, Schmeiser G	2023	Operative Orthopädie und Traumatologie	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Reduction in CT scan number with the reference frame middle attachment method in intraoperative CT navigation for adolescent idiopathic scoliosis	Oba H et al.	2023	European Spine Journal	Elements Curvature Correction Spine, Spinal Intraoperative Imaging, Spinal Navigation, Spinal Patient Registration	Go to article
Survey Assessment of Utility in Preoperative Magnetic Resonance (MR) Tractography Surgical Planning	Sharma M et al.	2023	World Neurosurgery	Cranial Planning, Elements Fibertracking	Go to article
Treatment Time Optimization in Single Fraction Stereotactic Ablative Radiation Therapy: A 10-Year Institutional Experience	Gaudreault M et al.	2022	Adv Radiat Oncol.	ExacTrac Dynamic, Spine Positioning & Monitoring	Go to article

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Electrode placement for SEEG: Combining stereotactic technique with latest generation planning software for intraoperative visualization and postoperative evaluation of accuracy and accuracy predictors	Kogias E et al.	2022	Clinical Neurology and Neurosurgery	Elements Segmentation, Elements Stereotaxy, sEEG Planning, sEEG Preop Imaging	Go to article
Factors associated with progression and mortality among patients undergoing stereotactic radiosurgery for intracranial metastasis: results from a national real-world registry	Alvi MA et al.	2022	Journal of Neurosurgery (published online ahead of print)	MBM SRS Registry, Quentry	Go to article
A dosimetric comparative analysis of Brainlab elements and Eclipse RapidArc for spine SBRT treatment planning	Deshazer G et al.	2022	Biomed Phys Eng Express.	Elements Spine SRS, Spine Dose Planning	Go to article
Use of virtual magnetic resonance imaging to compensate for brain shift during image-guided surgery: illustrative case	Kim JT et al.	2022	Journal of neurosurgery. Case lessons	Cranial Intraoperative Imaging, Elements Image Fusion Virtual iMRI	Go to article
Intraoperative integration of multimodal imaging to improve neuronavigation: a technical note	Mazzucchi E et al.	2022	World neurosurgery	Cranial Intraoperative Imaging, Elements Image Fusion	Go to article
Tracking motor and language eloquent white matter pathways with intraoperative fiber tracking versus preoperative tractography adjusted by intraoperative MRI-based elastic fusion	Zhang W et al.	2022	Journal of neurosurgery	Cranial Intraoperative Imaging, Elements Fibertracking, Elements Image Fusion Virtual iMRI	Go to article
Intraoperative MRI versus intraoperative ultrasound in pediatric brain tumor surgery: is expensive better than cheap? A review of the literature	Giussani C et al.	2022	Child's Nervous System	Cranial Intraoperative Imaging	Go to article
Clinical Evaluation of an Auto-Segmentation Tool for Spine SBRT Treatment	Chen Y et al.	2022	Front Oncol.	Elements SmartBrush Spine, Spine Contouring	Go to article
Evaluation of a Dedicated Software “Elements™ Spine SRS, Brainlab®” for Target Volume Definition in the Treatment of Spinal Bone Metastases With Stereotactic Body Radiotherapy	Rogé M et al.	2022	Front Oncol.	Elements SmartBrush Spine, Spine Contouring	Go to article

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Frameless Angiography-based GammaKnife Stereotactic Radiosurgery for Cerebral Arteriovenous Malformations: A Proof-of-Concept Study	Al Saiegh F et al.	2022	World Neurosurgery	Cranial Vascular Contouring, Elements Image Fusion Angio	Go to article
MRI-based contrast clearance analysis shows high differentiation accuracy between radiation-induced reactions and progressive disease after cranial radiotherapy	Bodensohn R et al.	2022	ESMO Open	Elements Contrast Clearance Analysis, MBM Treatment Assessment	Go to article
Multi-center planning study of radiosurgery for intracranial metastases through Automation (MC-PRIMA) by crowdsourcing prior web-based plan challenge study	Chan MKH et al.	2022	Physica Medica	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Single-isocenter stereotactic radiosurgery for multiple brain metastases: Impact of patient misalignments on target coverage in non-coplanar treatments	Eder MM et al.	2022	Z Med Phys.	ExacTrac Dynamic, MBM Positioning & Monitoring	Go to article
Comparison of three imaging and navigation systems regarding accuracy of pedicle screw placement in a sawbone model	Beisemann N et al.	2022	Scientific reports	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Single-isocenter multiple-target stereotactic radiosurgery for multiple brain metastases: dosimetric evaluation of two automated treatment planning systems	Raza GH et al.	2022	Radiat Oncol.	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
A phantom-based study and clinical implementation of Brainlab's treatment planning system for radiosurgical treatments of arteriovenous malformations	Shrestha N et al.	2022	Biomed Phys Eng Express.	Cranial Vascular Contouring, Elements Image Fusion Angio	Go to article
ExacTrac Dynamic workflow evaluation: Combined surface optical/thermal imaging and X-ray positioning	Da Silva Mendes V et al.	2022	J Appl Clin Med Phys.	Cranial Positioning & Monitoring, ExacTrac Dynamic, ExacTrac Dynamic Surface	Go to article
PO-1130 Stereotactic Radiosurgery for trigeminal neuralgia using Exactrac Dynamic. First experience	Corro Verde UA et al.	2022	Radiotherapy and Oncology	ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring	Go to article

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Primary Orbital Reconstruction with Selective Laser Melting (SLM) of Patient-Specific Implants (PSIs): An Overview of 96 Surgically Treated Patients	Rana M et al.	2022	Journal of clinical medicine	CMF Navigation, CMF Planning, Elements Segmentation	Go to article
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	Ohtakara K et al.	2022	Cureus	Cranial Vascular Contouring, Elements Image Fusion Angio	Go to article
Evaluation of the ability of the Brainlab Elements Cranial Distortion Correction algorithm to correct clinically relevant MRI distortions for cranial SRT	Retif P et al.	2022	Strahlenther Onkol.	Elements Distortion Correction Cranial, MBM Contouring	Go to article
Navigated 3D ultrasound-guided resection of high-grade gliomas: A case series and review	Habib A et al.	2022	Surgical neurology international	Cranial Intraoperative Imaging	Go to article
Intraoperative CT-guided navigation versus fuoroscopy for percutaneous pedicle screw placement in 192 patients: a comparative analysis	La Rocca G et al.	2022	Journal of Orthopaedics and Traumatology	Spinal Navigation	Go to article
Optimized workflow to minimise intra-fractional motion during stereotactic body radiotherapy of spinal metastases	van Niekerk WM et al.	2022	Tecnical Innovations & Patient Support in Radiation Oncology	ExacTrac Dynamic, Spine Positioning & Monitoring	Go to article
Adaptive Hybrid Surgery Experiences in Benign Skull Base Tumors	Kienzler JC, Fandino J	2022	Brain Sci.	Cranial Contouring	Go to article
Safety and Feasibility of Augmented Reality Assistance in Minimally Invasive and Open Resection of Benign Intradural Extramedullary Tumors	Sommer F et al.	2022	Neurospine	Elements SmartBrush Spine, Spinal Navigation	Go to article
Augmented Reality to Improve Surgical Workflow in Minimally Invasive Transforaminal Lumbar Interbody Fusion – A Feasibility Study With Case Series	Sommer F et al.	2022	Neurospine	Elements SmartBrush Spine, Spinal Navigation	Go to article
Augmented Reality to Compensate for Navigation Inaccuracies	Bopp MHA et al.	2022	Sensors	Cranial Navigation, Elements Object Management	Go to article

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Personalized Medicine Workflow in Post-Traumatic Orbital Reconstruction	Sabelis JF et al.	2022	Journal of personalized medicine	CMF Navigation	Go to article
Postcentral Gyrus High-Grade Glioma: Maximal Safe Anatomic Resection Guided by Augmented Reality with Fiber Tractography and Fluorescein	Luzzi S et al.	2022	World neurosurgery	Cranial Navigation, Elements Fibertracking, Elements SmartBrush	Go to article
Usability of mixed reality in awake craniotomy planning	Moon RDC, Barua NU	2022	British journal of neurosurgery	Cranial Planning, Elements Distortion Correction Cranial, Elements Fibertracking, Elements Segmentation, Elements SmartBrush, Magic Leap	Go to article
Stimulation of the Presupplementary Motor Area Cluster of the Subthalamic Nucleus Predicts More Consistent Clinical Outcomes	Kähkölä J et al.	2022	Neurosurgery	DBS Planning, Elements Fibertracking, Elements Stereotaxy	Go to article
Combined use of multimodal techniques for the resection of glioblastoma involving corpus callosum	Cui M et al.	2022	Acta neurochirurgica	Cranial Intraoperative Imaging, Cranial Navigation, Elements Fibertracking	Go to article
Focused ultrasound using a novel targeting method four-tract tractography for magnetic resonance–guided high-intensity focused ultrasound targeting	Feltrin FS et al.	2022	Brain Communications	Elements Distortion Correction Cranial, Elements Fibertracking, Elements Object Management, Elements Trajectory Planning Cranial, MR-guided Focused Ultrasound (MRgFUS)	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	Mallereau CH et al.	2022	J Clin Neurosci	Cranial Navigation	Go to article
SURG-04. Robotic alignment system Cirq (Brainlab) for navigated brain tumor biopsies in children	van Baarsen K et al.	2022	Neuro Oncology	Cirq, Cranial Navigation	Go to article

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A framework for ExacTrac Dynamic commissioning for stereotactic radiosurgery and stereotactic ablative radiotherapy	Perrett B et al.	2022	J Med Phys	Breast Positioning & Monitoring, Cranial Positioning & Monitoring, ExacTrac Dynamic, ExacTrac Dynamic Surface, Lung Positioning & Monitoring	Go to article
Effectiveness of a cranial distortion correction software using a novel measurement method	Belloeil-Marrane T et al.	2022	Journal of Radiosurgery and SBRT	Elements Distortion Correction Cranial, MBM Contouring	Go to article
The Importance of Distortion Correction in Stereotactic Radiosurgery for Trigeminal Neuralgia	Samanci Y et al.	2022	Journal of Radiosurgery and SBRT	Elements Distortion Correction Cranial, Functional Radiosurgery Contouring	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 A et al.	2022	Journal of Radiosurgery and SBRT	ExacTrac Dynamic, MBM Positioning & Monitoring	Go to article
Navigation Techniques in Endoscopic Spine Surgery	Hagan MJ et al.	2022	BioMed research international	Spinal Navigation	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	Wong JRY et al.	2022	Cureus	Orthopedic Planning, TraumaCad	Go to article
Preoperative joint line convergence angle correction is a key factor in optimising accuracy in varus knee correction osteotomy	Behrendt P et al.	2022	Knee Surgery, Sports Traumatology, Arthroscopy	Orthopedic Planning, TraumaCad	Go to article
Atlantoaxial posterior screw fixation using intra-operative spinal navigation with three-dimensional isocentric C-arm fluoroscopy	Jannelli G et al.	2022	International orthopaedics	Spinal Navigation	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 MJ et al.	2022	World neurosurgery	Spinal Intraoperative Imaging, Spinal Navigation	Go to article

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Novel MIS 3D NAV Single Step Pedicle Screw System (SSPSS): Workflow, Accuracy and Initial Clinical Experience	Schmidt FA et al.	2022	Global Spine Journal	Spinal Navigation	Go to article
Automated optimization of deep brain stimulation parameters for modulating neuroimaging-based targets	Malekmohammadi M et al.	2022	Journal of neural engineering	DBS Planning, Elements Image Fusion	Go to article
Shift detection discrepancy between ExacTrac Dynamic system and cone-beam computed tomography	Chow VUY et al.	2022	Appl Clin Med Phys.	Cranial Positioning & Monitoring, ExacTrac Dynamic, ExacTrac Dynamic Surface	Go to article
Treatment Response Assessment Maps (TRAMs), a new tool for CNS lymphoma	Millard T et al.	2022	EJHaem.	Cranial Treatment Assessment, Elements Contrast Clearance Analysis	Go to article
Producing High Quality Cranial SRS Plans with 4Pi Planning Technique	Narayanasamy G et al.	2022	Medical Physics	Cranial Dose Planning, Elements Cranial SRS	Go to article
Augmented reality-assisted craniofacial reconstruction in skull base lesions - an innovative technique for single-step resection and cranioplasty in neurosurgery	Steiert C et al.	2022	Neurosurgical review	Cranial Planning, Elements SmartBrush	Go to article
Advances and Innovations in Ablative Head and Neck Oncologic Surgery Using Mixed Reality Technologies in Personalized Medicine	Karnatz N et al.	2022	Journal of clinical medicine	CMF Planning, Elements Stereotaxy, Magic Leap	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 VA et al.	2022	Acta Neurochir (Wien)	DBS Planning, DBS Postop Review & Programming, Elements Segmentation	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 S et al.	2021	European spine journal	Curve, Spinal Intraoperative Imaging, Spinal Navigation, Spinal Planning	Go to article
Intraoperative MRI-based elastic fusion for anatomically accurate tractography of the corticospinal tract: correlation with intraoperative neuromonitoring and clinical status	Ille S et al.	2021	Neurosurgical focus	Cranial Intraoperative Imaging, Elements Fibertracking, Elements Image Fusion Virtual iMRI	Go to article

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Large residual pilocytic astrocytoma after failed ultrasound-guided resection: intraoperative ultrasound limitations require special attention	Šteňo A et al.	2021	World neurosurgery	Cranial Intraoperative Imaging	Go to article
Elastic Image Fusion Software to Coregister Preoperatively Planned Pedicle Screws With Intraoperative Computed Tomography Data for Image-Guided Spinal Surgery.	Schmidt FA et al.	2021	International journal of spine surgery	Spinal Intraoperative Imaging, Spinal Navigation	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 S et al.	2021	Cancers	Cranial Intraoperative Imaging, Elements Fibertracking, Elements Image Fusion Virtual iMRI	Go to article
Initial Intraoperative Experience with Robotic-Assisted Pedicle Screw Placement with Cirq® Robotic Alignment: An Evaluation of the First 70 Screws	Pojskić M et al.	2021	JCM	Cirq, Spinal Navigation	Go to article
Challenges and Opportunities of Intraoperative 3D Ultrasound With Neuronavigation in Relation to Intraoperative MRI	Bastos DCA et al.	2021	Frontiers in oncology	Cranial Intraoperative Imaging, Cranial Planning, Elements Fibertracking	Go to article
Surgical strategies for older patients with glioblastoma	Barak T et al.	2021	Journal of neuro-oncology	Cranial Intraoperative Imaging	Go to article
Do directional deep brain stimulation leads rotate after implantation?	Krüger MT et al.	2021	Acta neurochirurgica	DBS Planning, Elements Stereotaxy	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 VA et al.	2021	Acta neurochirurgica	Cranial Dose Planning, Cranial Patient Registration, DBS Planning, Elements Fibertracking, Elements Segmentation, MR-guided Focused Ultrasound (MRgFUS), sEEG Preop Imaging	Go to article

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Reduced Programming Time and Strong Symptom Control Even in Chronic Course Through Imaging-Based DBS Programming	Lange F et al.	2021	Front. Neurol. (Frontiers in Neurology)	DBS Analytics, DBS Planning, DBS Postop Review & Programming, DBS Preop Imaging, Elements Segmentation	Go to article
Imaging-based programming of subthalamic nucleus deep brain stimulation in Parkinson's disease	Waldthaler J et al.	2021	Brain stimulation	DBS Planning, DBS Preop Imaging, Elements Segmentation	Go to article
Application of Augmented Reality in Percutaneous Procedures-Rhizotomy of the Gasserian Ganglion	Rau A et al.	2021	Operative Neurosurgery	Cranial Planning, Magic Leap	Go to article
Navigated Deep Brain Stimulation Surgery: Evaluating the Combined Use of a Frame-Based Stereotactic System and a Navigation System	Krüger MT et al.	2021	Stereotactic and functional neurosurgery	Cranial Navigation, DBS Planning, Elements Segmentation, Elements Stereotaxy	Go to article
Longitudinal Assessment of Rotation Angles after Implantation of Directional Deep Brain Stimulation Leads	Lange F et al.	2021	Stereotactic and functional neurosurgery	DBS Planning	Go to article
Intra-Fraction Motion Management for Radiosurgical Treatments of Trigeminal Neuralgia: Clinical Experience, Imaging Frequency, and Motion Analysis	Agazaryan N et al.	2021	Cureus	ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring	Go to article
Local failure after stereotactic radiosurgery (SRS) for intracranial metastasis: analysis from a cooperative, prospective national registry	Asher AL et al.	2021	J Neurooncol (Journal of Neuro-Oncology)	MBM SRS Registry, Quentry	Go to article
Hypofractionated stereotactic radiotherapy for large brain metastases: Optimizing the dosimetric parameters	Brun L et al.	2021	Cancer radiotherapie : journal de la Societe francaise de radiotherapie oncologique	Cranial Dose Planning, Elements Cranial SRS	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 M et al.	2021	Radiation oncology (London, England)	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article

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Commissioning cranial single-isocenter multi-target radiosurgery for the Versa HD	Knill C et al.	2021	Journal of applied clinical medical physics	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Accuracy of dose-volume metric calculation for small-volume radiosurgery targets	Stanley DN et al.	2021	Med. Phys. (Medical physics)	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Single isocenter treatment planning techniques for stereotactic radiosurgery of multiple cranial metastases	Velten C et al.	2021	Physics and Imaging in Radiation Oncology	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Targeting for stereotactic radiosurgical thalamotomy based on tremor treatment response	Luo G et al.	2021	Journal of neurosurgery	Elements Segmentation, Functional Radiosurgery Contouring	Go to article
Reduction of inter-observer differences in the delineation of the target in spinal metastases SBRT using an automatic contouring dedicated system	Giaj-Levra N et al.	2021	Radiat Oncol.	Elements SmartBrush Spine, Spine Contouring	Go to article
Analysis of potential time saving in brain arteriovenous malformation stereotactic radiosurgery planning using a new software platform	Dabus G et al.	2021	Med Dosim.	Cranial Vascular Contouring, Elements Image Fusion Angio	Go to article
Quality of Automated Stereotactic Radiosurgery Plans in Patients with 4 to 10 Brain Metastases	Petoukhova A et al.	2021	Cancers (Basel).	Elements Multiple Brain Mets SRS, MBM Dose Planning	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	Peker S et al.	2021	World Neurosurg.	Elements Contrast Clearance Analysis, MBM Treatment Assessment	Go to article
Lower Limb Deformity and Gait Deviations Among Adolescents and Adults With X-Linked Hypophosphatemia	Mindler GT et al.	2021	Front. Endocrinol	Orthopedic Planning, TraumaCad	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?	Al-Ashqar M et al.	2021	Eur J Orthop Surg Traumatol	Orthopedic Calibration, Orthopedic Planning	Go to article

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Bone Lengthening with a Motorized Intramedullary Nail in 34 Patients with Posttraumatic Limb Length Discrepancies	Teulières M et al.	2021	PMC Journal	Orthopedic Planning, TraumaCad	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 S et al.	2021	Frontiers in human neuroscience	Cranial Intraoperative Imaging, Cranial Navigation, Elements Fibertracking	Go to article
Robotic Assistance for Minimally Invasive Cervical Pedicle Instrumentation: Report on Feasibility and Safety	Farah K et al.	2021	World neurosurgery	Cirq, Spinal Navigation	Go to article
Cirq robotic arm-assisted transpedicular instrumentation with intraoperative navigation: technical note and case series with 714 thoracolumbar screws	Chesney K et al.	2021	Journal of robotic surgery	Cirq, Spinal Navigation	Go to article
Simultaneous stereotactic radiosurgery of multiple brain metastases using single-isocenter dynamic conformal arc therapy: a prospective monocentric registry trial	Bodensohn R et al.	2021	Strahlenther Onkol	ExacTrac Dynamic, MBM Positioning & Monitoring	Go to article
Noninvasive Thalamotomy for Refractory Tremor by Frameless Radiosurgery	Khattab MH et al.	2021	Int J Radiat Oncol Biol Phys.	ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring	Go to article
Simultaneous radiosurgery for multiple brain metastases: technical overview of the UCLA experience	Agazaryan N et al.	2021	Radiat Oncol.	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Supratentorial high-grade gliomas: maximal safe anatomical resection guided by augmented reality high-definition fiber tractography and fluorescein	Luzzi S et al.	2021	Neurosurgical focus	Cranial Navigation, Elements Fibertracking, Elements SmartBrush	Go to article
PO-1752 Intrafractional motion detection for spine SBRT via X-ray imaging using ExacTrac Dynamic	Mücke J et al.	2021	Radiotherapy and Oncology	ExacTrac Dynamic, Spine Positioning & Monitoring	Go to article
PO-1556 Evaluation of the new Brainlab Exactrac Dynamic structured light positioning system	Astudillo R et al.	2021	Radiotherapy and Oncology	Cranial Positioning & Monitoring, ExacTrac Dynamic	Go to article

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Elastic Image Fusion Software to Coregister Preoperatively Planned Pedicle Screws With Intraoperative Computed Tomography Data for Image-Guided Spinal Surgery	Schmidt FA et al.	2021	International Journal of Spine Surgery	Elements Curvature Correction Spine, Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Comparing Fiducial-Based and Intraoperative Computed Tomography-Based Registration for Frameless Stereotactic Brain Biopsy	Saß B et al.	2021	Stereotact Funct Neurosurg	Cranial Navigation, Elements Image Fusion, Elements SmartBrush, Elements Trajectory Planning Cranial	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	Bichsel O et al.	2021	BMC Neurol	Cranial Intraoperative Imaging, Cranial Navigation	Go to article
Targeting the safe zones for cup position without fluoroscopic guidance in total hip arthroplasty: does the surgical approach affect the outcomes?	Trevisan C et al.	2021	European Journal of Orthopaedic Surgery & Traumatology	Orthopedic Planning, TraumaCad	Go to article
Reliability of a simple fluoroscopic image to assess leg length discrepancy during direct anterior approach total hip arthroplasty	Caus S et al.	2021	World Jornal of Orthopedics	Orthopedic Planning, TraumaCad	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 PM et al.	2021	Neurocirugia	Spinal Navigation	Go to article
VarioGuide® frameless neuronavigation-guided stereoelectroencephalography in adult epilepsy patients: technique, accuracy and clinical experience	Ladisich B et al.	2021	Acta neurochirurgica	Cranial Patient Registration, Elements Stereotaxy, sEEG Preop Imaging	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.	Cranial Treatment Assessment, Elements Contrast Clearance Analysis	Go to article
Mixed reality in oral and maxillofacial surgery: a symbiosis of virtual and augmented reality or a pointless technological gadget?	Bartella AK et al.	2021	International journal of computerized dentistry	CMF Planning, Elements Image Fusion, Elements Segmentation, Elements Stereotaxy, Magic Leap	Go to article

Title	Author	Year	Journal	Medical Areas	Link
Intraoperative Computed Tomography and Finite Element Modelling for Multimodal Image Fusion in Brain Surgery	Riva M et al.	2020	Operative neurosurgery (Hagerstown, Md.)	Cranial Intraoperative Imaging, Elements Image Fusion, Elements Image Fusion Virtual iMRI	Go to article
Navigated intraoperative ultrasonography for brain tumors: a pictorial essay on the technique, its utility, and its benefits in neuro-oncology	Yeole U et al.	2020	Ultrasonography (Seoul, Korea)	Cranial Intraoperative Imaging, Kick	Go to article
Augmented Reality in Superficial Temporal Artery to Middle Cerebral Artery Bypass Surgery: Technical Note	Rychen J et al.	2020	Operative neurosurgery (Hagerstown, Md.)	Cranial Navigation	Go to article
Augmented reality for the virtual dissection of white matter pathways	Ille S et al.	2020	Acta neurochirurgica	Cranial Planning, Elements Fibertracking, Magic Leap	Go to article
Clinical Uses of Diffusion Tensor Imaging Fiber Tracking Merged Neuronavigation with Lesions Adjacent to Corticospinal Tract : A Retrospective Cohort Study	Yu Q et al.	2020	Journal of Korean Neurosurgical Society	Cranial Navigation, Cranial Planning, Elements Fibertracking	Go to article
Surgical workflow for fully navigated high sacral amputation in sacral chordoma	Goldberg J et al.	2020	Neurosurgical review	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Spine Surgery Supported by Augmented Reality	Carl B et al.	2020	Global Spine Journal	Elements Curvature Correction Spine, Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Cirq® Robotic Assistance for Minimally Invasive C1-C2 Posterior Instrumentation: Report on Feasibility and Safety	Farah K et al.	2020	Operative neurosurgery (Hagerstown, Md.)	Cirq, Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Evolving Navigation, Robotics, and Augmented Reality in Minimally Invasive Spine Surgery	Hussain I et al.	2020	Global Spine Journal	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Orbital floor symmetry after maxillectomy and orbital floor reconstruction with individual titanium mesh using computer-assisted navigation	Kang YF et al.	2020	Journal of plastic, reconstructive & aesthetic surgery : JPRAS	CMF Navigation	Go to article
Application of Computer-Aided Navigation Technology in the Extraction of Foreign Body From the Face	Lan L et al.	2020	The Journal of craniofacial surgery	CMF Navigation	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 S et al.	2020	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons	CMF Navigation, CMF Planning	Go to article
Removal of Orbital Metallic Foreign Bodies With Image-Guided Surgical Navigation	Zhao Y et al.	2020	Ophthalmic plastic and reconstructive surgery	CMF Navigation	Go to article
Comparison of Automatic Segmentation Algorithms for the Subthalamic Nucleus	Polanski WH et al.	2020	Stereotactic and functional neurosurgery	DBS Planning, Elements Segmentation	Go to article
Evaluation of Automatic Segmentation of Thalamic Nuclei through Clinical Effects Using Directional Deep Brain Stimulation Leads: A Technical Note	Krüger MT et al.	2020	Brain sciences	DBS Planning, Elements Segmentation	Go to article
Novel Programming Features Help Alleviate Subthalamic Nucleus Stimulation-Induced Side Effects	Dayal V et al.	2020	Movement disorders : official journal of the Movement Disorder Society	DBS Planning	Go to article
Intraoperative Stereotactic Frame Registration Using a Three-Dimensional Imaging System with and without Preoperative Computed Tomography for Image Fusion	Spatz JM et al.	2020	Stereotactic and functional neurosurgery	Cranial Patient Registration, DBS Planning, Elements Image Fusion, sEEG Preop Imaging	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 N et al.	2020	Brain stimulation	DBS Planning, Elements Segmentation	Go to article
Visualization of volume of tissue activated modeling in a clinical planning system for deep brain stimulation	Carl B et al.	2020	Journal of neurosurgical sciences	DBS Planning, Elements Fibertracking, Elements Segmentation	Go to article
Quality-of-life trajectories after stereotactic radiosurgery for brain metastases	Bunevicius A et al.	2020	Journal of neurosurgery	MBM SRS Registry, Quentry	Go to article
Positioning accuracy of a single-isocenter multiple targets SRS treatment: A comparison between Varian TrueBeam CBCT and Brainlab ExacTrac	Graulieres E et al.	2020	Physica Medica	ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring	Go to article

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Dosimetric comparison of mono-isocentric and multi-isocentric plans for oligobrain metastases: A single institutional experience	Kuntz L et al.	2020	Cancer radiotherapie : journal de la Societe francaise de radiotherapie oncologique	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Patient-specific dose quality assurance of single-isocenter multiple brain metastasis stereotactic radiosurgery using PTW Octavius 4D	McCulloch J et al.	2020	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Time-Driven Activity-Based Costing Comparison of Stereotactic Radiosurgery to Multiple Brain Lesions Using Single-Isocenter Versus Multiple-Isocenter Technique	Parikh NR et al.	2020	International Journal of Radiation Oncology*Biology*Physics	Elements Multiple Brain Mets SRS, MBM Dose Planning	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 M et al.	2020	Cureus	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Evaluation of Elements Spine SRS Plan Quality for SRS and SBRT Treatment of Spine Metastases	Trager M et al.	2020	Frontiers in oncology	Elements Spine SRS, Spine Dose Planning	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 T et al.	2020	Cancer Medicine	ExacTrac Dynamic, Prostate Positioning & Monitoring	Go to article
SBRT in single or multiple spinal metastases: 36 Gy in 3 fractions given to GTV	Zunino S et al.	2020	Radiocirugia (Radiocirugía)	Elements Spine SRS, Spine Dose Planning	Go to article
Digital Preop-planning of Total Hip Arthroplasties	Reina, N	2020	N/A	Orthopedic Planning, TraumaCad	Go to article
Orthopedic Digital Planning for Total Hip Arthroplasties	Reina N, Appiah B	2020	N/A	Orthopedic Planning, TraumaCad	Go to article
Should we employ preoperative templating in hip hemiarthroplasty after femoral neck fracture? A nested case-control study	Pujol O et al.	2020	Sage Journal	Orthopedic Planning, TraumaCad	Go to article

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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 G et al.	2020	Advances in Radiation Oncology	ExacTrac Dynamic, MBM Positioning & Monitoring	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 G et al.	2020	J Neurooncol (Journal of Neuro-Oncology)	ExacTrac Dynamic, MBM Positioning & Monitoring	Go to article
Risk Assessment by Presurgical Tractography Using Navigated TMS Maps in Patients with Highly Motor- or Language-Eloquent Brain Tumors	Sollmann N et al.	2020	Cancers	Cranial Planning, Elements Fibertracking	Go to article
Accuracy and safety of pedicle screws implantation using Zeego and Brainlab navigation system in hybrid operation room	Fong Y et al.	2020	Formos J Surg	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Feasibility of intraoperative computed tomography for endoscopic-assisted intraparenchymal hemorrhage evacuation	Potts MB, Jahromi BS	2020	Clinical neurology and neurosurgery	Cranial Intraoperative Imaging, Cranial Patient Registration	Go to article
Is the Gothic Arch a reliable radiographic landmark for migration percentage in children with cerebral palsy?	Wek C et al.	2020	Journal of Children's Orthopaedics	Orthopedic Planning	Go to article
PD-0435: Brainlab ExacTrac Dynamic – First pre-clinical validation of surface- and X-Ray positioning accuracy	Da Silva Mendes V et al.	2020	Radiotherapy and Oncology	Cranial Positioning & Monitoring, ExacTrac Dynamic, ExacTrac Dynamic Surface	Go to article
Functional MRI in Children: Current Clinical Applications	Guerin JB et al.	2020	Seminars in pediatric neurology	Cranial Planning, Elements BOLD MRI Mapping	Go to article
Elastic Fusion Enables Fusion of Intraoperative Magnetic Resonance Imaging Data with Preoperative Neuronavigation Data	Negwer C et al.	2020	World neurosurgery	Cranial Intraoperative Imaging, Elements Fibertracking, Elements Image Fusion, Elements Image Fusion Virtual iMRI	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	Joud A et al.	2020	Neurochirurgie	Cranial Navigation	Go to article
Dosimetric Impact of Distortion Correction of MR Image Set for Cranial Stereotactic Radiation Treatments	Sandhu R et al.	2020	American Association of Physicists in Medicine Virtual Meeting	Elements Distortion Correction Cranial, MBM Contouring	Go to article
Effect of Distortion to Radiosurgery Treatment Plans for Brain Metastases	Kucuk N et al.	2020	Cureus	Elements Distortion Correction Cranial, MBM Contouring	Go to article
Brainlab Spine SRS planning and verification, comparison with CyberKnife	Jones C et al.	2020	Radiotherapy and Oncology	Elements Spine SRS, Spine Dose Planning	Go to article
Improving tractography in brainstem cavernoma patients by distortion correction	Ille S et al.	2020	DGNC 2020 Meeting Abstract	Cranial Planning, Elements Distortion Correction Cranial, Elements Fibertracking, Elements Image Fusion	Go to article
Frequency of Large Intrafractional Target Motions During Spine Stereotactic Body Radiation Therapy	Wu J et al.	2020	Pract Radiat Oncol.	ExacTrac Dynamic, Spine Positioning & Monitoring	Go to article
Spinal navigation for posterior cervical and cervicothoracic instrumentation	Richter et al.	2019	Operative Orthopadie Traumatologie	Spinal Navigation	Go to article
Auf einem Gewebemodell basierende automatische Bildsegmentierung zur Konturierung von Risikoorganen in der Behandlungsplanung für spinale Metastasierung	Wittenstein O et al.	2019	Strahlentherapie und Onkologie : Organ der Deutschen Rontgengesellschaft ... [et al]	Elements Segmentation, Spine Contouring	Go to article
Augmented Reality in Transsphenoidal Surgery	Carl B et al.	2019	World neurosurgery	Cranial Intraoperative Imaging, Cranial Navigation, Elements Image Fusion, Elements Segmentation	Go to article
Use of Frameless Stereotactic Navigation System Combined with Intraoperative Magnetic Resonance Imaging and 5-Aminolevulinic Acid	Giordano M et al.	2019	World neurosurgery	Cranial Intraoperative Imaging, Cranial Navigation	Go to article

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The role of frameless stereotactic biopsy in contemporary neuro-oncology: molecular specifications and diagnostic yield in biopsied glioma patients	Mader MM et al.	2019	Journal of neuro-oncology	Cranial Navigation, Cranial Planning	Go to article
Frameless Stereotactic Navigation during Insular Glioma Resection using Fusion of Three-Dimensional Rotational Angiography and Magnetic Resonance Imaging	Dasenbrock HH et al.	2019	World neurosurgery	Cranial Navigation, Cranial Planning, Elements Image Fusion	Go to article
Frameless stereotactic biopsy for precision neurosurgery: diagnostic value, safety, and accuracy	Sciortino T et al.	2019	Acta neurochirurgica	Cranial Navigation, Cranial Planning, Elements Image Fusion	Go to article
Brain Tumor-Enhancement Visualization and Morphometric Assessment: A Comparison of MPRAGE, SPACE, and VIBE MRI Techniques	Danieli L et al.	2019	AJNR. American journal of neuroradiology	Cranial Navigation, Cranial Planning, Elements Image Fusion	Go to article
Primary orbital reconstruction with selective laser melted core patient-specific implants: overview of 100 patients	Rana M et al.	2019	The British journal of oral & maxillofacial surgery	CMF Planning, Elements Segmentation	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 CG et al.	2019	Operative neurosurgery (Hagerstown, Md.)	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Standard navigation versus intraoperative computed tomography navigation in upper cervical spine trauma	Carl B et al.	2019	International journal of computer assisted radiology and surgery	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Implementation of augmented reality support in spine surgery	Carl B 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	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Minimal invasive percutaneous C1C2 fixation using an intraoperative 3D imaging-based navigation system on management of odontoid fractures	Meyer M et al.	2019	World neurosurgery	Spinal Intraoperative Imaging, Spinal Navigation	Go to article

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Augmented reality in intradural spinal tumor surgery	Carl B et al.	2019	Acta neurochirurgica	Spinal Intraoperative Imaging, Spinal Navigation, Spinal Planning	Go to article
Microscope-Based Augmented Reality in Degenerative Spine Surgery: Initial Experience	Carl B et al.	2019	World neurosurgery	Spinal Intraoperative Imaging, Spinal Navigation, Spinal Planning	Go to article
Navigated 3-Dimensional Intraoperative Ultrasound for Spine Surgery	Saß B et al.	2019	World neurosurgery	Spinal Intraoperative Imaging, Spinal Navigation, Spinal Planning	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 MR, Krauspe R	2019	Clin Spine Surg (Clinical spine surgery)	Spinal Navigation	Go to article
Is bony attachment necessary for dynamic reference frame in navigation-assisted minimally invasive lumbar spine fusion surgery?	Lin HH et al.	2019	Computer assisted surgery (Abingdon, England)	Spinal Navigation	Go to article
Radiation exposure for the surgical team in a hybrid-operating room	Schuetze K et al.	2019	Journal of robotic surgery	Spinal Navigation	Go to article
Quantitative assessment of symmetry recovery in navigation-assisted surgical reduction of zygomaticomaxillary complex fractures	Bao T et al.	2019	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery	CMF Navigation	Go to article
Application of Computer-Assisted Navigation System in Acute Zygomatic Fractures	Yang C et al.	2019	Annals of plastic surgery	CMF Navigation	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	DBS Planning, Elements Segmentation, Elements Stereotaxy	Go to article
Understanding gamma ventral capsulotomy: Potential implications of diffusion tensor image tractography on target selectivity	Santos BFO et al.	2019	Surgical neurology international	Elements Fibertracking, Functional Radiosurgery Contouring	Go to article

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Superolateral medial forebrain bundle deep brain stimulation in major depression: a gateway trial	Coenen VA et al.	2019	Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology	DBS Planning, DBS Preop Imaging, Elements Fibertracking, Elements Segmentation	Go to article
Adaptive hybrid surgery analysis (AHSA) for adjuvant gamma knife radiosurgery treatment of vestibular schwannoma residuals	Bartek J Jr et al.	2019	Clinical Neurology and Neurosurgery	Cranial Contouring	Go to article
Radiation-induced vascular malformations in the brain, mimicking tumor in MRI-based treatment response assessment maps (TRAMs)	Guez D et al.	2019	Clinical and Translational Radiation Oncology	Elements Contrast Clearance Analysis, MBM Treatment Assessment	Go to article
Single isocenter stereotactic radiosurgery for patients with multiple brain metastases: dosimetric comparison of VMAT and a dedicated DCAT planning tool	Hofmaier J et al.	2019	Radiat Oncol (Radiation Oncology)	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
A dosimetric analysis of a spine SBRT specific treatment planning system	Saenz DL et al.	2019	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)	Elements Spine SRS, Spine Dose Planning	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 S et al.	2019	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)	ExacTrac Dynamic, Prostate Positioning & Monitoring	Go to article
Geometric planning in vertebral and pelvic complex surgery: sufficient number of evaluating parameters proving	Kolesnikova AS et al.	2019	SPIE	Orthopedic Planning, TraumaCad	Go to article
Growth modulation in idiopathic angular knee deformities: is it predictable?	Danino B et al.	2019	Bone& Joint publishing	Orthopedic Surgery	Go to article
Improving the accuracy of digital templating: achieving success through stakeholder management	Parwaiz H et al.	2019	BMJ Open Qual	Orthopedic Planning, TraumaCad	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	Keltz E et al.	2019	AAOS	Orthopedic Planning, TraumaCad	Go to article
Subcutaneous Radiographic Measurement: A Marker to Evaluate Surgical Site Infection Risk in Elderly Hip Fracture Patients	Bernaus M et al.	2019	JBJI	Orthopedic Planning, TraumaCad	Go to article
Templating Hip Arthroplasty	Alnahhal A et al.	2019	Open Access Maced J Med Sci.	Orthopedic Calibration, Orthopedic Planning, TraumaCad	Go to article
Reliable navigation registration in cranial and spine surgery based on intraoperative computed tomography	Carl B et al.	2019	Neurosurgical focus	Buzz, Cranial Patient Registration, Cranial Planning, Curve, Elements Segmentation, Spinal Patient Registration, Spinal Planning, sEEG Planning	Go to article
EP-2055 Impact of patient-specific MRI distortion correction for stereotactic cranial target definition	Gevaert T et al.	2019	Radiotherapy and Oncology	Elements Distortion Correction Cranial, MBM Contouring	Go to article
Safety and Efficacy of Posterior Atlanto-Axial Stabilization Using Intraoperative Navigation System with Preoperative Computed Tomographic Scan	Fiorenza V, Ascanio F	2019	World neurosurgery	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Automatic image segmentation based on synthetic tissue model for delineating organs at risk in spinal metastasis treatment planning	Wittenstein O et al.	2019	Strahlenther Onkol.	Elements Segmentation, Spine Contouring	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 N et al.	2019	Radiation oncology (London, England)	Elements Curvature Correction Spine, Elements Image Fusion, Elements SmartBrush Spine, Elements Spine SRS, Spine Contouring, Spine Dose Planning	Go to article

Title	Author	Year	Journal	Medical Areas	Link
Evaluation of a novel software application for magnetic resonance distortion correction in cranial stereotactic radiosurgery	Calvo-Ortega JF et al.	2019	Med Dosim.	Elements Distortion Correction Cranial, MBM Contouring	Go to article
Comparison of Frame-Based Versus Frameless Intracranial Stereotactic Biopsy: Systematic Review and Meta-Analysis	Dhawan S et al.	2019	World Neurosurg	Cranial Navigation	Go to article
Retrospective distortion correction of diffusion tensor imaging data by semi-elastic image fusion - Evaluation by means of anatomical landmarks	Gerhardt J et al.	2019	Clinical neurology and neurosurgery	Cranial Contouring, Elements Fibertracking	Go to article
Evaluation of a novel elastic registration algorithm for spinal imaging data: A pilot clinical study	Rashad A et al.	2019	The international journal of medical robotics + computer assisted surgery: MRCAS	Elements Curvature Correction Spine, Spine Contouring	Go to article
Initial Experience Using Brainlab Elements Cranial SRS	Venencia CD et al.	2019	AAPM Library	Cranial Dose Planning, Elements Cranial SRS	Go to article
EP-2101 Evaluation of the feasibility of performing markerless tracking for lung SBRT patients	Gevaert T et al.	2019	Radiotherapy and Oncology	ExacTrac Dynamic, Lung Positioning & Monitoring	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 B et al.	2018	World neurosurgery	Cranial Intraoperative Imaging, Cranial Navigation, Elements Image Fusion	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 J et al.	2018	World neurosurgery	Cranial Navigation	Go to article
Navigation-Linked Heads-Up Display in Intracranial Surgery: Early Experience	Mascitelli JR et al.	2018	Operative neurosurgery (Hagerstown, Md.)	Cranial Navigation	Go to article
Head-up display may facilitate safe keyhole surgery for cerebral aneurysm clipping	Toyooka T et al.	2018	Journal of neurosurgery	Cranial Navigation	Go to article

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Optic Radiation Diffusion Tensor Imaging Tractography: An Alternative and Simple Technique for the Accurate Detection of Meyer's Loop	Bertani GA et al.	2018	World neurosurgery	Cranial Planning, Elements Fibertracking	Go to article
Intraoperative 3-dimensional cone beam computed tomographic imaging during reconstruction of the zygoma and orbit	Gander T et al.	2018	Oral surgery, oral medicine, oral pathology and oral radiology	CMF Planning, Elements Segmentation	Go to article
Semi-automatic tumour volume measurements on MR-Imaging using smartbrush® in oropharyngeal carcinomas; our experience in 5 patients	Lodder WL et al.	2018	Clinical otolaryngology : official journal of ENT-UK ; official journal of Netherlands Society for Oto-Rhino-Laryngology & Cervico-Facial Surgery	ENT Planning, Elements SmartBrush	Go to article
Intraoperative Computed Tomography Versus 3D C-Arm Imaging for Navigated Spinal Instrumentation	Hecht N et al.	2018	Spine	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Does Intraoperative Navigation Improve the Anatomical Reduction of Intracapsular Condylar Fractures?	Han C et al.	2018	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons	CMF Navigation	Go to article
Digital Diagnosis and Treatment Program for Maxillofacial Fractures: A Retrospective Analysis of 626 Cases	Zeng W et al.	2018	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons	CMF Navigation	Go to article
Surgical navigation improves reductions accuracy of unilateral complicated zygomaticomaxillary complex fractures: a randomized controlled trial	Zhang X et al.	2018	Scientific Reports	CMF Navigation	Go to article
Efficacy of intraoperative ultrasonography in neurosurgical tumor resection	Sweeney JF et al.	2018	Journal of neurosurgery. Pediatrics	Cranial Intraoperative Imaging	Go to article
Validation of diffusion tensor imaging tractography to visualize the dentatorubrothalamic tract for surgical planning	Nowacki A et al.	2018	Journal of neurosurgery	DBS Planning, Elements Stereotaxy	Go to article

Title	Author	Year	Journal	Medical Areas	Link
Early outcomes of stereoelectroencephalography followed by MR-guided laser interstitial thermal therapy: a paradigm for minimally invasive epilepsy surgery	Cobourn K et al.	2018	Neurosurgical focus	Cranial Navigation, MR-guided Laser Interstitial Thermal Therapy (LITT), sEEG Preop Imaging	Go to article
Implantation of Depth Electrodes in Children Using VarioGuide® Frameless Navigation System: Technical Note	Budke M et al.	2018	Operative Neurosurgery	Cranial Navigation, Cranial Patient Registration, Elements Stereotaxy, sEEG Preop Imaging	Go to article
Implementation of Intraoperative Computed Tomography for Deep Brain Stimulation: Pitfalls and Optimization of Workflow, Accuracy, and Radiation Exposure	Carl B et al.	2018	World neurosurgery	Cranial Navigation, Elements Segmentation, Functional and Stereotactic Surgery	Go to article
Navigation-Supported Stereotaxy by Applying Intraoperative Computed Tomography	Carl B et al.	2018	World neurosurgery	Elements Stereotaxy, sEEG Intraop Imaging, sEEG Planning, sEEG Preop Imaging	Go to article
Intraoperative computed tomography as reliable navigation registration device in 200 cranial procedures	Carl B et al.	2018	Acta neurochirurgica	Cranial Intraoperative Imaging, Cranial Navigation, Cranial Patient Registration, DBS Planning, sEEG Planning	Go to article
Adaptive Hybrid Surgery: Paradigm Shift for Patient-centered Neurosurgery	Cohen-Inbar O, Sviri GE	2018	Rambam Maimonides Med J.	Cranial Contouring	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 JP et al.	2018	Journal of neurosurgery	MBM SRS Registry, Quentry	Go to article
Planned Subtotal Resection of Vestibular Schwannoma Differs from the Ideal Radiosurgical Target Defined by Adaptive Hybrid Surgery	Sheppard JP et al.	2018	World neurosurgery	Cranial Contouring	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	Steiger CN et al.	2018	J Child Orthop.	Orthopedic Planning, TraumaCad	Go to article

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Risk of patella baja after opening-wedge high tibial osteotomy	Murakami T et al.	2018	Sage Journal	Orthopedic Planning, TraumaCad	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 et al.	2018	Knee Surg Sports Traumatol Arthrosc	Orthopedic Surgery	Go to article
The 3-dot circle: A reliable method for safe and efficient digital templating of the acetabular component	Arnaout F et al.	2018	J Orthop	Orthopedic Calibration, Orthopedic Planning, TraumaCad	Go to article
First experience with the jump-starting robotic assistance device Cirq	Krieg SM, Meyer B	2018	Neurosurgical focus	Cirq, Spinal Navigation	Go to article
Optic Radiation Diffusion Tensor Imaging Tractography. An Alternative and Simple Technique for the Accurate Detection of Meyer's Loop	Bertani GA et al.	2018	World neurosurgery	Cranial Planning, Elements Fibertracking	Go to article
Evaluation of a four-pi approach to stereotactic treatment planning in cranial SRT	Robar J	2018	Radiotherapy and Oncology	Cranial Dose Planning, Elements Cranial SRS	Go to article
Accuracy of Novel Computed Tomography-Guided Frameless Stereotactic Drilling and Catheter System in Human Cadavers	Sankey EW et al.	2017	World neurosurgery	Cranial Intraoperative Imaging	Go to article
Accuracy of VarioGuide Frameless Stereotactic System Against Frame-Based Stereotaxy: Prospective, Randomized, Single-Center Study	Bradac O et al.	2017	World neurosurgery	Cranial Navigation	Go to article
Removal of recurrent intraorbital tumour using a system of augmented reality	Scolozzi P, Bijlenga P	2017	The British journal of oral & maxillofacial surgery	CMF Navigation, CMF Planning	Go to article
Visualization of subcortical language pathways by diffusion tensor imaging fiber tracking based on rTMS language mapping	Negwer C et al.	2017	Brain imaging and behavior	Cranial Planning, Elements Fibertracking	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 T et al.	2017	NeuroImage. Clinical	Cranial Planning, Elements Fibertracking	Go to article

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Spinal navigation for posterior instrumentation of C1-2 instability using a mobile intraoperative CT scanner	Czabanka M et al.	2017	Journal of neurosurgery. Spine	Spinal Intraoperative Imaging, Spinal Navigation	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 R et al.	2017	World neurosurgery	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
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 MH et al.	2017	The spine journal : official journal of the North American Spine Society	Spinal Navigation	Go to article
Intraoperative navigation in complex head and neck resections: indications and limits	Catanzaro S et al.	2017	International journal of computer assisted radiology and surgery	CMF Navigation	Go to article
Application of a computer-assisted surgical navigation system in temporomandibular joint ankylosis surgery: a retrospective study	He Y et al.	2017	International journal of oral and maxillofacial surgery	CMF Navigation	Go to article
Applications of 3D orbital computer-assisted surgery (CAS)	Scolozzi P	2017	Journal of stomatology, oral and maxillofacial surgery	CMF Navigation	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 E et al.	2017	Plastic and reconstructive surgery	CMF Navigation	Go to article
Functional Magnetic Resonance Imaging (fMRI), Pre-intraoperative Tractography in Neurosurgery: The Experience of Sant' Andrea Rome University Hospital	D'Andrea G et al.	2017	Acta neurochirurgica. Supplement	Cranial Intraoperative Imaging, Cranial Planning, Elements BOLD MRI Mapping	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	Bose KS, Sarma RH	2017	Technology in Cancer Research & Treatment	ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring	Go to article

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An evaluation of the BrainLAB 6D ExacTrac/Novalis Tx System for image-guided intracranial radiotherapy	Montgomery C, Collins M	2017	J Radiother Pract (Journal of Radiotherapy in Practice)	ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring	Go to article
A Systematic Analysis of 2 Monoisocentric Techniques for the Treatment of Multiple Brain Metastases	Narayanasamy G et al.	2017	Technology in Cancer Research & Treatment	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Submillimeter alignment of more than three contiguous vertebrae in spinal SRS/SBRT with 6-degree couch	Wang X et al.	2017	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)	ExacTrac Dynamic, Spine Positioning & Monitoring	Go to article
Pre-Operative Planning of Total Hip Arthroplasty on Dysplastic Acetabuli	Lakstein D et al.	2017	Sage Journal	Orthopedic Planning, TraumaCad	Go to article
Radiographic templating of total hip arthroplasty for femoral neck fractures	Lakstein D et al.	2017	International Orthopaedics	Orthopedic Planning, TraumaCad	Go to article
The orthopaedic management of lower limb deformity in hypophosphataemic rickets	Horn A et al.	2017	J Child Orthop.	Orthopedic Planning, TraumaCad	Go to article
Margin of error for a frameless image guided radiosurgery system: Direct confirmation based on posttreatment MRI scans	Luo G et al.	2017	Practical Radiation Oncology	ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring	Go to article
Truebeam Radiosurgery for the Treatment of Trigeminal Neuralgia: Preliminary Results at a Single Institution	Kerolus MG et al.	2017	Cureus	ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring	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 A et al.	2017	The Bone & Joint Journal	Spinal Navigation	Go to article
Integrating Surgery and Radiosurgery: Our First Experiences with Adaptive Hybrid Surgery Analysis Software in Benign Skull Base Tumors	Schwyzer L et al.	2017	J Neurol Surg A Cent Eur Neurosurg	Cranial Contouring	Go to article

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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.	Freyschlag CF et al.	2017	Brain Inform	Cranial Navigation, Cranial Planning, Elements Fibertracking	Go to article
Preoperative prediction of language function by diffusion tensor imaging	Freyschlag CF et al.	2017	Brain Inform	Cranial Navigation, Cranial Planning, Elements Distortion Correction Cranial	Go to article
Target location after deep cerebral biopsies using low-volume air injection in 75 patients. Results and technical note	Poca MA et al.	2017	Acta Neurochir (Wien)	Cranial Navigation	Go to article
Progressive disease in glioblastoma: Benefits and limitations of semi-automated volumetry	Huber T et al.	2017	PloS one	Cranial Contouring, Elements SmartBrush	Go to article
Reliability of Semi-Automated Segmentations in Glioblastoma	Huber T et al.	2017	Clinical neuroradiology	Cranial Contouring, Elements SmartBrush	Go to article
Correlation between intraoperative ultrasound and postoperative MRI in pediatric tumor surgery	Smith H et al.	2016	Journal of neurosurgery. Pediatrics	Cranial Intraoperative Imaging	Go to article
Neuroendoscopic Intraventricular Biopsy in Children with Small Ventricles Using Frameless VarioGuide System	Avecillas-Chasin JM et al.	2016	World neurosurgery	Cranial Navigation	Go to article
Multimodal Neuronavigation in Microsurgery Resection of BrainStem Tumors	Zhang F et al.	2016	The Journal of craniofacial surgery	Cranial Navigation, Cranial Planning, Elements SmartBrush	Go to article
Distinct displacements of the optic radiation based on tumor location revealed using preoperative diffusion tensor imaging	Faust K, Vajkoczy P	2016	Journal of neurosurgery	Cranial Planning, Elements Fibertracking	Go to article
Orbital volume analysis: validation of a semi-automatic software segmentation method	Jansen J et al.	2016	International journal of computer assisted radiology and surgery	CMF Planning, Elements Segmentation	Go to article

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Accuracy and workflow of navigated spinal instrumentation with the mobile Airo(®) CT scanner	Hecht N 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	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Accuracy of computer-assisted iliosacral screw placement using a hybrid operating room	Richter PH et al.	2016	Injury	Spinal Navigation	Go to article
Three-Dimensional Accuracy of Virtual Planning and Surgical Navigation for Mandibular Reconstruction With Free Fibula Flap	Yu Y et al.	2016	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons	CMF Navigation, CMF Planning	Go to article
A prospective multicenter study to compare the precision of posttraumatic internal orbital reconstruction with standard preformed and individualized orbital implants	Zimmerer RM et al.	2016	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery	CMF Navigation	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 LJ et al.	2016	World neurosurgery	Cranial Intraoperative Imaging, Cranial Planning, Elements BOLD MRI Mapping	Go to article
Intraoperative high-field magnetic resonance imaging, multimodal neuronavigation, and intraoperative electrophysiological monitoring-guided surgery for treating supratentorial cavernomas	Li FY et al.	2016	Chronic diseases and translational medicine	Cranial Intraoperative Imaging, Cranial Planning, Elements BOLD MRI Mapping	Go to article
Evaluation of a dedicated brain metastases treatment planning optimization for radiosurgery: a new treatment paradigm?	Gevaert T et al.	2016	Radiat Oncol (Radiation Oncology)	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Dosimetric validation for an automatic brain metastases planning software using single-isocenter dynamic conformal arcs	Liu H et al.	2016	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article

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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 Y et al.	2016	Cureus	Elements Multiple Brain Mets SRS, MBM Dose Planning	Go to article
Inception of a national multidisciplinary registry for stereotactic radiosurgery	Sheehan JP et al.	2016	Journal of neurosurgery	MBM SRS Registry, Quentry	Go to article
Updates on preoperative planning, limb deformity analysis and surgical correction for the growing children	Segev E	2016	J Child Orthop.	Orthopedic Planning, TraumaCad	Go to article
3-D-navigierte Pedikelschrauben der Halswirbelsäule – Erfahrungen und Komplikationsanalyse	Schiffer G et al.	2016	Zeitschrift fur Orthopadie und Unfallchirurgie	Spinal Navigation	Go to article
Optimizing ventriculoperitoneal shunt placement in the treatment of idiopathic intracranial hypertension: an analysis of neuroendoscopy, frameless stereotaxy, and intraoperative CT	Yim B et al.	2016	Neurosurgical Focus	Cranial Navigation, Elements Stereotaxy	Go to article
Fully Automated Enhanced Tumor Compartmentalization: Man vs. Machine Reloaded	Porz N et al.	2016	PloS one	Cranial Contouring, Elements SmartBrush	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.	Cranial Treatment Assessment, Elements Contrast Clearance Analysis	Go to article
Use of intraoperative Doppler ultrasound with neuronavigation to guide arteriovenous malformation resection: a pediatric case series	Walkden JS et al.	2015	Journal of neurosurgery. Pediatrics	Cranial Intraoperative Imaging, Cranial Navigation	Go to article
Augmented reality-assisted bypass surgery: embracing minimal invasiveness	Cabrilo I et al.	2015	World neurosurgery	Cranial Navigation	Go to article
Pre-operative image-based segmentation of the cranial nerves and blood vessels in microvascular decompression: Can we prevent unnecessary explorations?	Dolati P et al.	2015	Clinical neurology and neurosurgery	Cranial Navigation, Cranial Planning, Elements SmartBrush	Go to article

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Patient specific implants (PSI) in reconstruction of orbital floor and wall fractures	Gander T et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery	CMF Planning, Elements Segmentation	Go to article
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 M et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery	CMF Planning, Elements Segmentation	Go to article
Development and first clinical application of automated virtual reconstruction of unilateral midface defects	Wagner ME et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery	CMF Planning, Elements Segmentation	Go to article
A Multicenter Experience With Image-Guided Surgical Navigation: Broadening Clinical Indications in Complex Craniomaxillofacial Surgery	Andrews BT et al.	2015	The Journal of craniofacial surgery	CMF Navigation	Go to article
Late Reconstruction of the Orbit With Patient-Specific Implants Using Computer-Aided Planning and Navigation	Baumann A et al.	2015	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons	CMF Navigation, CMF Planning	Go to article
Intraoperative navigation for single-splint two-jaw orthognathic surgery: From model to actual surgery	Chang HW et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery	CMF Navigation, CMF Planning	Go to article
Predictability in orbital reconstruction.	Dubois L et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery	CMF Navigation	Go to article
Applications of Computer-Assisted Navigation for the Minimally Invasive Reduction of Isolated Zygomatic Arch Fractures	Li Z et al.	2015	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons	CMF Navigation	Go to article

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Three-dimensional computer-assisted orthognathic surgery: experience of 37 patients	Lin HH et al.	2015	Annals of plastic surgery	CMF Navigation	Go to article
The Use of Brainlab Navigation in Le Fort III Osteotomy	Wood JS et al.	2015	The Journal of craniofacial surgery	CMF Navigation	Go to article
Reconstruction of maxillary defects with free fibula flap assisted by computer techniques	Zhang WB et al.	2015	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery	CMF Navigation	Go to article
Delayed contrast extravasation MRI: a new paradigm in neuro-oncology	Zach L et al.	2015	Neuro-Oncology	Elements Contrast Clearance Analysis, MBM Treatment Assessment	Go to article
Comparison of Hallux Valgus Deformity Evaluation on Printed Versus Digital X-Rays	Atoun E et al.	2015	Clinical Research on Foot & Ankle	Orthopedic Planning	Go to article
Diffusion tensor magnetic resonance imaging (DTI) tractography-guided deep brain stimulation in neuropathic pain	Coenen VA et al.	2015	Acta neurochirurgica	DBS Planning, Elements Fibertracking	Go to article
Contemporary frameless intracranial biopsy techniques: Might variation in safety and efficacy be expected?	Verploegh IS et al.	2015	Acta Neurochir (Wien)	Cranial Navigation	Go to article
Navigated high frequency ultrasound: description of technique and clinical comparison with conventional intracranial ultrasound	Coburger J et al.	2014	World neurosurgery	Cranial Intraoperative Imaging	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 M et al.	2014	Journal of neurological surgery. Part A, Central European neurosurgery	Cranial Intraoperative Imaging	Go to article
Augmented reality in the surgery of cerebral aneurysms: a technical report	Cabrilo I et al.	2014	Neurosurgery	Cranial Navigation	Go to article
Augmented reality in the surgery of cerebral arteriovenous malformations: technique assessment and considerations	Cabrilo I et al.	2014	Acta neurochirurgica	Cranial Navigation	Go to article

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Virtual surgery simulation in orbital wall reconstruction: integration of surgical navigation and stereolithographic models	Novelli G et al.	2014	Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery	CMF Navigation, CMF Planning, Elements Segmentation	Go to article
Three-dimensional simulation of the nasoalveolar cleft defect	Pálházi P et al.	2014	The Cleft palate-craniofacial journal : official publication of the American Cleft Palate-Craniofacial Association	ENT Planning, Elements Segmentation	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 A et al.	2014	Journal of orthopaedic trauma	Spinal Navigation	Go to article
Intraoperative imaging in orbital and midface reconstruction	Wilde F, Schramm A	2014	Facial plastic surgery : FPS	CMF Navigation	Go to article
A comparison of acetate and digital templating for hip resurfacing	Bracey DN et al.	2014	Am J Orthop (Belle Mead NJ)	Orthopedic Planning, TraumaCad	Go to article
Digital planning for foot and ankle deformity correction: Evans osteotomy	Siddiqui NA, Lamm BM	2014	J Foot Ankle Surg	Orthopedic Planning, TraumaCad	Go to article
Radiographic Assessment of Lower Limb Lengthening in Achondroplastic Patients, Using the Ilizarov Frame: A 5-19 Year Follow up Study	Stefanou MA et al.	2014	International Journal of Orthopaedics	Orthopedic Planning, TraumaCad	Go to article
Catheter placement for lysis of spontaneous intracerebral hematomas: is a navigated stylet better than pointer-guided frameless stereotaxy for intrahematomal catheter positioning?	Malinova V et al.	2014	Translational Stroke Research	Cranial Navigation, Elements Stereotaxy	Go to article
The benefits of navigated intraoperative ultrasonography during resection of fourth ventricular tumors in children	El Beltagy MA, Atteya MM	2013	Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery	Cranial Intraoperative Imaging	Go to article

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The silent loss of neuronavigation accuracy: a systematic retrospective analysis of factors influencing the mismatch of frameless stereotactic systems in cranial neurosurgery	Stieglitz LH et al.	2013	Neurosurgery	Cranial Intraoperative Imaging, Cranial Navigation	Go to article
Frameless navigated biopsy with the BrainLAB® VarioGuide system: a technical note	Buchalla R et al.	2013	Journal of neurological surgery. Part A, Central European neurosurgery	Cranial Navigation	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 MC et al.	2013	International journal of computer assisted radiology and surgery	CMF Planning, Elements Segmentation	Go to article
Advances in assessing the volume of odontogenic cysts and tumors in the mandible: a retrospective clinical trial	Stoetzer M et al.	2013	Head & Face Medicine	CMF Planning	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 N et al.	2013	Journal of spinal disorders & techniques	Spinal Navigation	Go to article
Utilization of computed tomography image-guided navigation in orbit fracture repair	Andrews BT et al.	2013	The Laryngoscope	CMF Navigation	Go to article
Intrafraction variations in linac-based image-guided radiosurgery of intracranial lesions	Badakhshi H et al.	2013	Cancer radiotherapie : journal de la Societe francaise de radiotherapie oncologique	Cranial Positioning & Monitoring, ExacTrac Dynamic	Go to article
Evaluation of the clinical usefulness for using verification images during frameless radiosurgery	Gevaert T et al.	2013	Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology	Cranial Positioning & Monitoring, ExacTrac Dynamic	Go to article
Dosimetric impact of intrafraction motion during RapidArc stereotactic vertebral radiation therapy using flattened and flattening filter-free beams	Ong CL et al.	2013	International Journal of Radiation Oncology*Biology*Physics	ExacTrac Dynamic, Spine Positioning & Monitoring	Go to article
PO-0658 Adaptive hybrid surgery: feasibility study of computer-assisted multi-modality approach to skull base tumors	Barani IJ, Parsa AT	2013	Radiotherapy and Oncology	Cranial Contouring	Go to article

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Factors affecting diagnostic yield in needle biopsy for brain lesions	Tsermoulas G et al.	2013	British Journal of Neurosurgery	Cranial Navigation	Go to article
Image-guided implantation of precalibrated catheters in the ICU: a feasibility study.	Keric N et al.	2013	Acta Neurochirurgica	Cranial Navigation, Elements Stereotaxy	Go to article
Intra-arterial intraoperative computed tomography angiography guided navigation: a new technique for localization of vascular pathology	Raza SM et al.	2012	Neurosurgery	Cranial Intraoperative Imaging, Cranial Navigation	Go to article
Importance of intraoperative magnetic resonance imaging for pediatric brain tumor surgery	Yousaf J et al.	2012	Surgical neurology international	Cranial Intraoperative Imaging, Cranial Navigation	Go to article
Frameless image-guided stereotaxy with real-time visual feedback for brain biopsy	Gempt J et al.	2012	Acta neurochirurgica	Cranial Navigation	Go to article
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 G et al.	2012	Spine	Spinal Navigation	Go to article
Computer-assisted navigational surgery improves outcomes in orbital reconstructive surgery	Cai EZ et al.	2012	The Journal of craniofacial surgery	CMF Navigation	Go to article
Orbitozygomatic fractures with enophthalmos: analysis of 64 cases treated late	He D et al.	2012	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons	CMF Navigation	Go to article
Advances and innovations in computer-assisted head and neck oncologic surgery	Rana M et al.	2012	The Journal of craniofacial surgery	CMF Navigation	Go to article
Study of ExacTrac X-ray 6D IGRT setup uncertainty for marker-based prostate IMRT treatment	Shi C et al.	2012	J. Appl. Clin. Med. Phys. (Journal of applied clinical medical physics)	ExacTrac Dynamic, Prostate Positioning & Monitoring	Go to article
Delayed contrast extravasation MRI for depicting tumor and non-tumoral tissues in primary and metastatic brain tumors	Zach L et al.	2012	PLoS ONE	Elements Contrast Clearance Analysis, MBM Treatment Assessment	Go to article

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The accuracy of automatic calibration of digital pelvic radiographs using two different scale markers: a comparative study	Baxter JA et al.	2012	Hip Int	Orthopedic Calibration, Orthopedic Planning, TraumaCad	Go to article
Image guided navigation by intraoperative CT scan for cochlear implantation	Stelter K et al.	2012	Computer aided surgery : official journal of the International Society for Computer Aided Surgery	Cranial Intraoperative Imaging, Cranial Navigation, ENT Navigation	Go to article
Individualized treatment of craniovertebral junction malformation guided by intraoperative computed tomography	Li L et al.	2012	Journal of spinal disorders & techniques	Spinal Intraoperative Imaging, Spinal Navigation, Spinal Patient Registration	Go to article
Adaptive Hybrid Surgery: Feasibility of Planned Subtotal Resection of Benign Skull Base Tumors Followed by Radiosurgery to Minimize Morbidity Without Compromising Tumor Control	Barani I, Parsa A	2012	IJROBP	Cranial Contouring	Go to article
Frameless stereotactic targeting devices: technical features, targeting errors and clinical results	Widmann G et al.	2012	Int J Med Robot	Cranial Navigation	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 D et al.	2011	Neuro-oncology	Cranial Intraoperative Imaging, Elements Image Fusion	Go to article
Intraoperative ultrasound in malformations of cortical development	Miller D et al.	2011	Ultraschall in der Medizin (Stuttgart, Germany : 1980)	Cranial Intraoperative Imaging	Go to article
Frameless stereotactic procedures in pediatric patients: safety and diagnostic efficacy	Parreño MG et al.	2011	Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery	Cranial Navigation	Go to article
Accuracy of image-guided pedicle screw placement using intraoperative computed tomography-based navigation with automated referencing, part I: cervicothoracic spine	Scheufler KM et al.	2011	Neurosurgery	Spinal Intraoperative Imaging, Spinal Navigation	Go to article

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Diagnostic and therapeutic aspects in the treatment of gunshot wounds of the viscerocranium	Gröbe A et al.	2011	European journal of trauma and emergency surgery : official publication of the European Trauma Society	CMF Navigation	Go to article
Surgical navigation in craniomaxillofacial surgery: expensive toy or useful tool? A classification of different indications	Lübbers HT et al.	2011	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons	CMF Navigation	Go to article
Intraoperative stereotactic navigation for reconstruction in zygomatic-orbital trauma	Nyachhyon P, Kim PC	2011	JNMA; journal of the Nepal Medical Association	CMF Navigation	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 P, Terzic A	2011	Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons	CMF Navigation	Go to article
The accuracy of digital templating in primary total knee replacements	Prasad S et al.	2011	Orthopaedic Proceedings	Orthopedic Planning, TraumaCad	Go to article
Accuracy of image-guided pedicle screw placement using intraoperative computed tomography-based navigation with automated referencing. Part II: thoracolumbar spine	Scheufler KM et al.	2011	Neurosurgery	Spinal Intraoperative Imaging, Spinal Navigation, Spinal Patient Registration	Go to article
Intraoperative tractography and motor evoked potential (MEP) monitoring in surgery for gliomas around the corticospinal tract	Maesawa S et al.	2010	World neurosurgery	Cranial Intraoperative Imaging, Cranial Navigation	Go to article
Less invasive surgical correction of adult degenerative scoliosis, part I: technique and radiographic results	Scheufler KM et al.	2010	Neurosurgery	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Iso-C/3-dimensional neuronavigation versus conventional fluoroscopy for minimally invasive pedicle screw placement in lumbar fusion	Fraser J et al.	2010	Minimally invasive neurosurgery : MIN	Spinal Navigation	Go to article

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Can computer-assisted surgery reduce the effective dose for spinal fusion and sacroiliac screw insertion?	Kraus MD et al.	2010	Clinical orthopaedics and related research	Spinal Navigation	Go to article
Frameless image-guided radiosurgery for initial treatment of typical trigeminal neuralgia	Chen JC et al.	2010	World neurosurgery	ExacTrac Dynamic, Functional Radiosurgery Positioning & Monitoring	Go to article
Intra- and interobserver reliability analysis of digital radiographic measurements for pediatric orthopedic parameters using a novel PACS integrated computer software program	Segev E et al.	2010	J Child Orthop.	Orthopedic Planning, TraumaCad	Go to article
Preoperative planning of total hip replacement using the TraumaCad™ system	Steinberg EL et al.	2010	Arch Orthop Trauma Surg	Orthopedic Planning, TraumaCad	Go to article
Less invasive surgical correction of adult degenerative scoliosis, part I: technique and radiographic results.	Scheufler KM et al.	2010	Neurosurgery	Spinal Intraoperative Imaging, Spinal Navigation	Go to article
Intraoperative computed tomography and automated registration for image-guided cranial surgery	Eggers G et al.	2009	Dento maxillo facial radiology	Cranial Intraoperative Imaging, Cranial Navigation, Cranial Patient Registration	Go to article
Impact of intraoperative high-field magnetic resonance imaging guidance on glioma surgery: a prospective volumetric analysis	Hatiboglu MA et al.	2009	Neurosurgery	Cranial Intraoperative Imaging, Cranial Navigation	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 S et al.	2009	Neurologia medico-chirurgica	Cranial Intraoperative Imaging, Cranial Navigation	Go to article
VarioGuide: a new frameless image-guided stereotactic system--accuracy study and clinical assessment	Ringel F et al.	2009	Neurosurgery	Cranial Navigation	Go to article
Reproducibility and Accuracy of Templating Uncemented THA With Digital Radiographic and Digital TraumaCad Templating Software.	Kumar PG et al.	2009	Orthopedics	Orthopedic Planning, TraumaCad	Go to article
Planificación Preoperatoria Digital en Traumatología	Ramirez E	2009	Central University of Venezuela	Orthopedic Planning, TraumaCad	Go to article

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Automated registration of intraoperative CT image data for navigated skull base surgery	Eggers et al.	2008	Minimally invasive neurosurgery : MIN	Cranial Intraoperative Imaging, Cranial Navigation	Go to article
Image-guided radiosurgery for spinal tumors: methods, accuracy and patient intrafraction motion	Agazaryan N et al.	2008	Phys. Med. Biol. (Physics in medicine and biology)	ExacTrac Dynamic, Spine Positioning & Monitoring	Go to article
Dosimetric effect of translational and rotational errors for patients undergoing image-guided stereotactic body radiotherapy for spinal metastases	Wang H et al.	2008	International Journal of Radiation Oncology*Biology*Physics	ExacTrac Dynamic, Spine Positioning & Monitoring	Go to article
Is the image guidance of ultrasonography beneficial for neurosurgical routine?	Miller D et al.	2007	Surgical neurology	Cranial Intraoperative Imaging	Go to article
Image-guided ultrasonography for recurrent cystic gliomas	Enchev Y et al.	2006	Acta neurochirurgica	Cranial Intraoperative Imaging	Go to article
Cervical Pedicle Screws Conventional Versus Computer-Assisted Placement of Cannulated Screws.	Richter M et al.	2005	Spine	Spinal Navigation	Go to article