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Clinical Literature Library (created 2025-07-03) Categories: Cranial Surgery Keywords: Ultrasound Navigation



Title	Author	Year	Journal	Keywords	Link
Brainshift correction using navigated intraoperative ultrasound informs intraoperative decision-making during glioma surgery	Rai et al.	2025	Acta Neurochirurgica	Ultrasound Navigation, Ultrasound SNAP to MRI, Elements Fibertracking, Brainshift, Intraoperative Ultrasound	<u>Go to article</u>
Intraoperative visualization of cerebral aneurysms using navigated 3D-ultrasound power-Doppler angiography	Šteňo et al.	2024	Acta neurochirurgica	Ultrasound Navigation, Cerebral Aneurysm, Vascular Malformations	Go to article
Navigated Intraoperative Ultrasound Offers Effective and Efficient Real-Time Analysis of Intracranial Tumor Resection and Brain Shift - PubMed (nih.gov)	West et al.	2024	Operative neurosurgery (Hagerstown, Md.)	Ultrasound Navigation, Elements SmartBrush, Elements Anatomical Mapping	<u>Go to article</u>
Navigated intraoperative ultrasound in pediatric brain tumors - PubMed (nih.gov)	Klein Gunnewiek et al.	2024	Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery	Ultrasound Navigation, IMRI, Elements SmartBrush, Pediatric	<u>Go to article</u>
Enabling Navigation and Augmented Reality in the Sitting Position in Posterior Fossa Surgery Using Intraoperative Ultrasound	Bopp et al.	2024	Cancers	Ultrasound Navigation, Ultrasound SNAP to MRI, Elements SmartBrush, Elements Image Fusion	<u>Go to article</u>
Automatic rigid image Fusion of preoperative MR and intraoperative US acquired after craniotomy	Edoardo Mazzucchi	2023	Cancer Imaging	Ultrasound Navigation, Automatic Image Registration (AIR), Elements Image Fusion, Brain Tumor Resection, Extent Of Resection (EOR), Target Registration Error, Ultrasound SNAP to MRI	<u>Go to article</u>
Intraoperative Navigated Three-Dimensional Ultrasound Guidance Improves Resection in Gliomas Compared with Standard Two-Dimensional Ultrasound-Results from a Comparative Cohort Study	Moiyadi et al.	2023	World neurosurgery	Ultrasound Navigation, 3D, Extent Of Resection (EOR), Planned Subtotal Resection (STR), Gliomas	<u>Go to article</u>
Intraoperative integration of multimodal imaging to improve neuronavigation: a technical note	Mazzucchi et al.	2022	World neurosurgery	Elements Virtual IMRI Cranial, Ultrasound Navigation, Elements Image Fusion, Brain Tumor Resection, Extent Of Resection (EOR), Cranial Navigation	<u>Go to article</u>



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Intraoperative MRI versus intraoperative ultrasound in pediatric brain tumor surgery: is expensive better than cheap? A review of the literature	Giussani C	2022	Child's Nervous System	Ultrasound Navigation, Intraoperative Ultrasound, Extent Of Resection (EOR), Pediatric	<u>Go to article</u>
Navigated 3D ultrasound-guided resection of high-grade gliomas: A case series and review	Habib et al.	2022	Surgical neurology international	Ultrasound Navigation, Brain Tumor Resection, Gliobastoma, Pilocytic Astrocytoma, Planned Subtotal Resection (STR)	<u>Go to article</u>
Large residual pilocytic astrocytoma after failed ultrasound-guided resection: intraoperative ultrasound limitations require special attention	Šteňo, Buvala	2021	World neurosurgery	Ultrasound Navigation, 3D, Pilocytic Astrocytoma	Go to article
Challenges and Opportunities of Intraoperative 3D Ultrasound With Neuronavigation in Relation to Intraoperative MRI	Bastos et al.	2021	Frontiers in oncology	Ultrasound Navigation, Elements Fibertracking, Brain Tumor Resection, IMRI	Go to article
Surgical strategies for older patients with glioblastoma	Barak et al.	2021	Journal of neuro- oncology	Ultrasound Navigation, IMRI, Gliobastoma, Brain Tumor Resection, Patient Outcomes	Go to article
Navigated intraoperative ultrasonography for brain tumors: a pictorial essay on the technique, its utility, and its benefits in neuro-oncology	Yeole et al.	2020	Ultrasonography (Seoul, Korea)	Ultrasound Navigation, Brainshift, Intraoperative Ultrasound, Brain Tumor Resection, 3D	Go to article
Efficacy of intraoperative ultrasonography in neurosurgical tumor resection	Sweeney et al.	2018	Journal of neurosurgery. Pediatrics	Ultrasound Navigation, Brain Tumor Resection, Extent Of Resection (EOR), Planned Subtotal Resection (STR)	Go to article
Correlation between intraoperative ultrasound and postoperative MRI in pediatric tumor surgery	Smith et al.	2016	Journal of neurosurgery. Pediatrics	Ultrasound Navigation, Extent Of Resection (EOR), Intraoperative Ultrasound, Brain Tumor Resection, Pediatric	Go to article
Use of intraoperative Doppler ultrasound with neuronavigation to guide arteriovenous malformation resection: a pediatric case series	Walkden et al.	2015	Journal of neurosurgery. Pediatrics	Cranial Navigation, Ultrasound Navigation, Extent Of Resection (EOR), Arteriovenous Malformation (AVM), Microscope Navigation	<u>Go to article</u>
Navigated high frequency ultrasound: description of technique and clinical comparison with conventional intracranial ultrasound	Coburger et al.	2014	World neurosurgery	Ultrasound Navigation, Extent Of Resection (EOR), Intraoperative Ultrasound, Brain Tumor Resection, Gliobastoma	<u>Go to article</u>



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Navigated versus non-navigated intraoperative ultrasound: is there any impact on the extent of resection of high-grade gliomas? A retrospective clinical analysis	Renovanz et al.	2014	Journal of neurological surgery. Part A, Central European neurosurgery	Ultrasound Navigation, Planned Subtotal Resection (STR), Intraoperative Ultrasound, Brain Tumor Resection, Gliomas	<u>Go to article</u>
The benefits of navigated intraoperative ultrasonography during resection of fourth ventricular tumors in children	El Beltagy, Atteya	2013	Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery	Ultrasound Navigation, Extent Of Resection (EOR), Intraoperative Ultrasound, Brain Primary Tumors, Pediatric	<u>Go to article</u>
Intraoperative ultrasound in malformations of cortical development	Miller et al.	2011	Ultraschall in der Medizin (Stuttgart, Germany : 1980)	Ultrasound Navigation, Automatic Image Registration (AIR), Epilepsy, Seizures, Extent Of Resection (EOR)	<u>Go to article</u>
Is the image guidance of ultrasonography beneficial for neurosurgical routine?	Miller et al.	2007	Surgical neurology	Ultrasound Navigation, Brainshift, Brain Tumor Resection	<u>Go to article</u>
Image-guided ultrasonography for recurrent cystic gliomas	Enchev et al.	2006	Acta neurochirurgica	Ultrasound Navigation, Brainshift, Brain Tumor Resection, Gliomas	<u>Go to article</u>