microtherapy.world newsletter - 2026-09

Sent 2026-09-01

Iceball Margin Under 5 mm Linked to Local Failure in Renal Cryoablation

This issue covers everything relevant published between 2026-08-27 and 2026-09-01, automatically gathered from PubMed and web search, alongside newly evaluated products on the site.

Image-guided therapies

Iceball Margin < 5 mm Is Associated with Local Failure after CT-Guided Cryoablation of cT1a Renal Cell Carcinoma.

Journal of vascular and interventional radiology : JVIR - 2026 Sep

In a study of CT-guided percutaneous cryoablation for cT1a renal cell carcinoma, an iceball minimal treatment margin under 5 mm was associated with local treatment failure, based on matched-control analysis of intraprocedural and planning CT data.

https://pubmed.ncbi.nlm.nih.gov/42288248/

CT-guided RFA using a urine-hyperexcreting protocol in treating endophytic RCC: long-term outcomes in a single-arm study.

The British journal of radiology - 2026 Sep 1

A single-arm study of 61 patients undergoing CT-guided RFA of endophytic RCC using a urine-hyperexcreting protocol (furosemide plus saline) reported a 5-year local tumor progression-free survival rate of 96.7% with long-term follow-up (median 54 months).

https://pubmed.ncbi.nlm.nih.gov/42500987/

Clinical Criteria for Improved Outcomes in Patients Who Undergo Percutaneous CT-Guided Pudendal Nerve Cryoablation: A Retrospective Analysis.

Journal of vascular and interventional radiology : JVIR - 2026 Sep

A 10-year retrospective analysis of 362 CT-guided pudendal nerve cryoablations found that predefined clinical selection criteria (antecedent event, unilateral pudendal-distribution pain) were associated with improved outcomes among the 75 unilateral cases with adequate follow-up.

https://pubmed.ncbi.nlm.nih.gov/42276242/

Saline tract sealing to prevent pneumothorax and chest tube placement after computed tomography (CT)-guided lung biopsy: a systematic review and meta-analysis.

Clinical radiology - 2026 Sep

A systematic review and meta-analysis evaluated saline tract sealing techniques to reduce pneumothorax and chest tube placement after CT-guided lung biopsy, a complication noted to occur in roughly 25% of cases with 5-6% requiring chest tube placement.

https://pubmed.ncbi.nlm.nih.gov/42480290/

New on the webpage

EmeryGlide Guidewire - trackr. Platform (Nano4Imaging)

Initial score: 43/60 - GOOD

https://microtherapy.world/products/emeryglide-guidewire-nano4imaging

New clinical studies

Tract Embolization versus No Embolization after CT-Guided Lung Biopsy: A Systematic Review and Meta-Analysis.

Journal of vascular and interventional radiology : JVIR - 2026 Sep

A systematic review and meta-analysis compared tract embolization versus no embolization after CT-guided percutaneous lung biopsy, pooling risk ratios across studies to assess effectiveness in preventing pneumothorax and chest tube placement.
https://pubmed.ncbi.nlm.nih.gov/42142830/

Saline tract sealing to prevent pneumothorax and chest tube placement after computed tomography (CT)-guided lung biopsy: a systematic review and meta-analysis.

Clinical radiology - 2026 Sep
A systematic review and meta-analysis assessed saline tract-sealing techniques (versus autologous blood, fibrin glue, collagen plugs) to reduce pneumothorax after CT-guided lung biopsy, noting baseline pneumothorax rates of about 25% and chest tube requirement in 5-6% of cases.
https://pubmed.ncbi.nlm.nih.gov/42480290/

Robotic-assisted surgeries

MRI-guided endovascular robotics: A roadmap to MRI-native systems.

APL bioengineering - 2026 Sep
A perspective outlines the roadmap toward MRI-native endovascular robotic systems, arguing that translating MRI-guided robotic catheter interventions into routine practice requires MRI-robot co-design rather than simple compatibility adaptation of instruments, imaging/feedback, and navigation.
https://pubmed.ncbi.nlm.nih.gov/42428809/

Interleaved Imaging and Actuation for Real-Time MRI During Active Control of a Magnetically-Actuated Robotic Catheter.

IEEE transactions on bio-medical engineering - 2026 Sep
Researchers developed an interleaved imaging-actuation method that synchronizes magnetically-actuated robotic catheter control with MR image acquisition, showing no statistically significant increase in image artifacts compared to the catheter at rest while maintaining trajectory tracking accuracy.
https://pubmed.ncbi.nlm.nih.gov/41370149/

Comparison of automated robotic arm-assisted PET/computed tomography-guided metabolic bone marrow biopsy with conventional bone marrow trephine biopsy for evaluating bone marrow infiltration in newly diagnosed lymphoma.

Nuclear medicine communications - 2026 Sep 1
In a prospective study of 169 treatment-naive lymphoma patients, automated robotic-arm-assisted PET/CT-guided bone marrow biopsy was compared with conventional trephine biopsy in 44 patients with focal FDG-avid lesions to evaluate diagnostic performance for bone marrow infiltration.
https://pubmed.ncbi.nlm.nih.gov/42087722/

Robot-assisted biopsy a bibliometric analysis of global trends, hotspots, and emerging frontiers (2000-2025).

Journal of robotic surgery - 2026 Aug 28
A bibliometric analysis of global research from 2000-2025 maps trends, key contributors, and emerging frontiers in robot-assisted biopsy techniques, which combine robotic manipulation, path planning, and multimodal imaging fusion for precise sampling of deep-seated lesions across urology, neurosurgery, and thoracic intervention.
https://pubmed.ncbi.nlm.nih.gov/42663785/

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