

malignancies. Internal carotid artery (ICA) coil extrusion is a rare complication of this procedure, with an increased risk in post radiated neck. Methods: We present a case of advanced nasopharyngeal carcinoma with cervical nodal metastasis treated with chemoradiation and complicated with left ICA blowout which was successfully coiled and embolized endovascularly. Results: He was subsequently presented with left-sided nosebleed. Imaging demonstrated patent occluded left ICA, however with extrusion of coil material into the nasopharynx which was most likely attributed by the soft tissue necrosis in the left parapharyngeal space. He was managed conservatively as his symptoms were mild and self-limiting. Subsequent follow-up imaging confirmed stable coil extrusion. Conclusions: This case highlights the importance of identifying and assessing coil extrusion on imaging, which includes assessment of the location of extrusion, vessel occlusion patency, and potential causes of extrusion. Goals of management for symptomatic patients aims to remove extruded foreign bodies and stabilize the wound to prevent massive bleeding or further coil migration.

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Mapping the neurointerventional radiology landscape in Canada: trends in growth, accessibility, and training opportunities

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Background: Neurointerventional radiology (NIR) is a growing field, offering minimally invasive treatments for cerebrovascular conditions like ischemic stroke. However, no comprehensive analysis of the current NIR landscape in Canada exists. This study aims to evaluate the NIR landscape through analysis of hospital-based services and training programs. Methods: Publicly available hospital data, fellowship programs, and national workforce statistics were analyzed to assess the expansion of NIR centers, practitioners, and services in Canada. The analysis focused on temporal trends in geographic distributions, specialists, and training programs. Results: From 2022 to 2024, the number of NIR centers increased by 20% (from 25 to 30), with new sites established in British Columbia, Quebec, and Newfoundland. Seven accredited RCPSC NIR training programs were identified, with 2 new programs expected to begin training fellows by 2030. Annual trainee enrollment also increased by about 10% per year, with over 50% being from radiology backgrounds. Endovascular thrombectomy, the most common NIR procedure, has seen an annual volume increase of approximately 13% since 2019. Conclusions: NIR is experiencing substantial growth in Canada across centers and training sites, aligning with public health goals. However, continued investment in infrastructure and workforce development is required to ensure equitable access to life-saving neurointerventional therapies nationally.

OTHER NEURORADIOLOGY

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The role of large language models in neuroradiology: a scoping review and thematic analysis

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Background: Large language models (LLMs) have gained popularity in medicine, however, their roles in neuroradiology remain underexplored. This study aimed to evaluate the current landscape, identify evidence gaps, and propose future directions for LLMs in neuroradiology. Methods: A systematic literature search of PubMed, Embase, Web of Science, and Scopus was conducted to identify relevant studies published between January 1, 2010, and October 1, 2024. Two reviewers screened eligible studies and selected original research applying LLMs in neuroradiology for inclusion. Included studies were evaluated using thematic and geographical analyses to identify trends. Results: Of 287 identified studies, 57 met the inclusion criteria. Findings revealed a significant upward trend in publications since 2018, with an annual growth rate of 78.2%. Three main themes emerged: Operational Workflow Optimization (n=26, 45.6%), Diagnostic Decision Support (n=20, 35.1%), and Education and Training (n=11, 19.3%). Geographically, most studies originated from North America (n=23, 40.4%), Europe (n=19, 33.3%), and Asia (n=12, 21.1%), with limited contribution from other regions (n=3, 5.3%). Key knowledge gaps included strategies to mitigate hallucinations, enhance transparency, and safeguard patient privacy. Conclusions: LLMs are being applied in neuroradiology to support diagnostics, streamline workflows, and enhance education. Future research should prioritize clinical validation, promote ethical practices, and expand global involvement.

NEUROSURGERY (CNSS)

FUNCTIONAL NEUROSURGERY AND PAIN

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Occipital nerve stimulation for refractory craniofacial pain

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Background: Occipital nerve stimulation (ONS) is a promising therapy for craniofacial pain syndromes refractory to conventional treatments. This study evaluates the long-term efficacy