Behind the clot: Atypical cerebral infarct as the manifestation of nasopharyngeal carcinoma—A case report of two rare presentations

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ABSTRACT

Introduction: Nasopharyngeal carcinoma (NPC) is a head and neck malignancy typically presenting with cervical lymphadenopathy, nasal and otologic symptoms. Cerebrovascular events in NPC are commonly attributed to post-radiotherapy complications. However, ischemic stroke as the manifestation of NPC is exceedingly rare. We report two rare cases where atypical ischemic cerebral infarct was the clinical presentation of undiagnosed NPC. **Case Description:** Both patients were adult males with vascular comorbidities, including diabetes mellitus, hypertension, and dyslipidemia. Each presented with acute altered mental status and hemiplegia. One had left ear pain with otorrhea and ipsilateral infra-auricular lymphadenopathy. Neurological evaluation of 1 patient revealed high NIH Stroke Scale scores (≥24). Non-contrast computed tomography (CT) and subsequent CT angiography and venography of the brain imaging of both cases showed large-vessel thrombosis in the internal carotid artery and cerebral infarctions in atypical regions (e.g., corpus callosum and internal border zones). Both cases demonstrated venous sinus thrombosis extending into the left internal jugular vein. Besides, both had radiological evidence of enhancing mass in the fossa of Rosenmüller with skull base erosion. Despite intensive care and mechanical ventilation, one patient died within four days of admission. **Conclusion:** These cases highlight an exceptionally rare but important manifestation of NPC presenting as atypical ischemic stroke. Clinicians and radiologists should maintain a high index of suspicion for skull base malignancy in patients with atypical infarct patterns or unusual vascular involvement, particularly adjacent to the fossa of Rosenmüller. Early utilization of CTA/CTV and careful assessment of skull base structures, even in non-contrast CT, are vital for timely diagnosis. These findings emphasize the need for multidisciplinary vigilance and suggest

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