FP 38: Skull base and Cervical spine Osteomyelitis, an under-recognized complication of Endoscopic Nasopharyngectomy – A case series and review of the literature

Authors: Cheang Ya Fang Amanda[1], Lim Ming Yann[1]
[1]Tan Tock Seng Hospital, Singapore

Background: Endoscopic Endonasal Nasopharyngectomy (EEN) is typically performed for recurrent or residual nasopharyngeal carcinoma. Post-operative osteomyelitis of the skull base and cervical spine is a potential complication of this surgery and can result in debilitating and dangerous consequences.

Method: EENs performed in our institution from December 2015 to December 2017 were retrospectively reviewed. Cases complicated by osteomyelitis were identified and further analyzed.

Results: Eight EENs were performed during the above stipulated time period. 3 of these 8 patients were diagnosed with osteomyelitis between 10 days to 3 months post-surgery. All 3 patients had rT1 tumors and a prior history of nasopharyngeal carcinoma that had been treated with concurrent chemo-radiotherapy. 2 patients had significant cardiovascular risk factors and vasculopathy, while one patient had prior cervical spine decompression surgery. All three patients' nasopharyngectomy defects were reconstructed using a nasoseptal flap. 2 patients developed persistent headache and neck pain with restriction in neck movement post-operatively, while 1 patient presented with acute supraglottitis, vocal cord palsy and spinal cord compression. Common causative organisms identified were Pseudomonas Aeruginosa and Methicillin-sensitive Staphylococcus Aureus.

Conclusion: Osteomyelitis of the skull base and cervical spine post-EEN is an important complication to recognize as it can lead to morbidity and mortality. Adequate reconstruction of the nasopharyngectomy defect as well as meticulous post-operative wound care is essential. A high index of suspicion is required in patients with predisposing factors and a history of persistent post-operative neck pain or headache. Imaging should be performed early for diagnosis and appropriate treatment instituted.