

Brown tumour of right orbital roof expansile lesion – diagnostic and multidisciplinary therapeutic strategies: a case report

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ABSTRACT

Brown tumour is a known manifestation of hyperparathyroidism. Orbit is a rare site of involvement, which can be vision threatening apart and compromising facial aesthetics. We report a case of right orbital roof expansile lesion biopsy-proven Brown tumour during debulking surgery and strategies for multidisciplinary management. An 18-year-old male with multiple comorbidities was presented with painless facial asymmetry, progressive right proptosis and dystopia for past 6 months. Diplopia was present at primary gaze a few months at onset. Visual acuity was 6/12 on right eye, and 6/9 on left eye with absence of right relative afferent pupillary defect. The right eye was mildly proptosed with inferior globe dystopia. Ocular motility was markedly limited on upgaze. Fundus was normal in both eyes. Computed tomography scan revealed benign expansile lytic bone lesion containing multiple small calcifications at right orbital roof. It extended into the orbit and caused compressive effect to the globe. Surgical resection was combined with oral and maxillofacial surgeons, which biopsy confirmed brown tumour. The diagnosis was consistent with pre-existing secondary hyperparathyroidism that was presumed due to chronic kidney disease. However, with manifestation of Brown tumour, the parathyroid gland should be further evaluated with aim for parathyroidectomy, in order to minimize tumour recurrence. Ophthalmologist, specifically oculoplastic surgeon plays critical role in diagnosing orbital brown tumour. Combined surgical biopsy and resection with oral and maxillofacial surgeons ensure optimal outcome. Multidisciplinary therapeutic strategies are essential to address the long term local and systemic issues.