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Clinical Image

Expansive Maxillary Brown Tumor in a Patient with Secondary Hyperparathyroidism

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Image Case Presentation:

A 31-year-old woman from Angola, with chronic kidney disease of unknown aetiology and on a haemodialysis programme since 2015, presented to the emergency department with a progressively enlarging and deforming nasopalatine mass that caused dysphagia and impaired vision in the left eye. Laboratory tests showed negative infectious serologies, Parathyroid Hormone (PTH) of 3462 pg/ml, phosphate 4.1 mg/dl and calcium 9.2 mg/dl. Maxillofacial computed tomography revealed a 78 × 60 × 63 mm mass in the anterosuperior maxillary region, with diffuse alteration of bone density in the context of a disordered phosphocalcic metabolism. Biopsy demonstrated fibrovascular tissue, multinucleated giant cells and haemosiderin deposits, consistent with a brown tumour (Figures 1A, 1B). A diagnosis of brown tumour secondary to secondary hyperparathyroidism was established. The patient underwent parathyroidectomy, with a subsequent decrease in PTH to 348 pg/ml.

Brown tumour is an uncommon osseous manifestation of secondary hyperparathyroidism, typically seen in chronic kidney disease, particularly in patients undergoing haemodialysis [1,2]. Although more frequent in women, craniofacial involvement is rare [1,2]. It is characterised by medullary osteofibrosis and increased focal osteoclastic bone resorption leading to fibrous osteitis [1]. Its expansive behaviour and radiological appearance may mimic malignant lesions [1]. Diagnosis requires clinical, biochemical, radiological and histological correlation, and parathyroidectomy is the treatment of choice to correct the underlying metabolic disorder and promote regression of the lesions [1,3].

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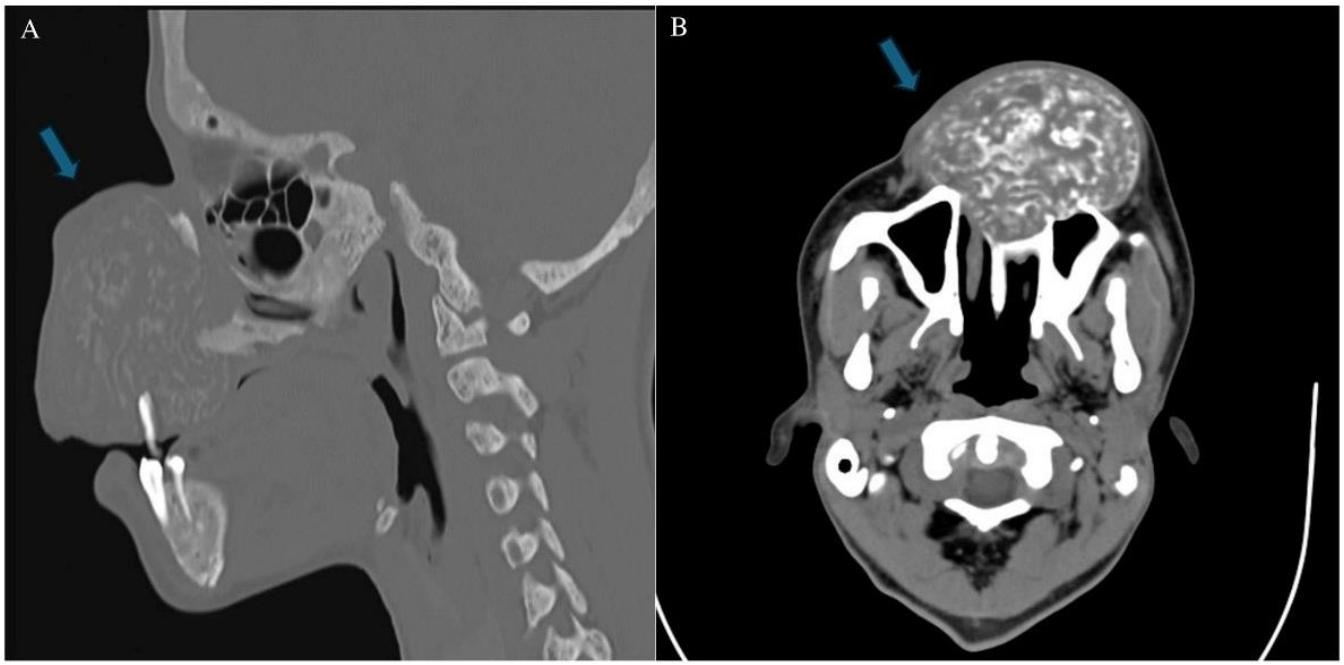

Figures: 1 Maxillofacial computed tomography – sagittal section **A)** and transverse section **B)** showing a well-defined nasopalatine expansile mass with bone destruction and remodeling of the upper maxilla, compatible with a brown tumor secondary to secondary hyperparathyroidism.

Declarations:

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Data Availability Statement: No new data were created or analyzed in this study. Data sharing is not applicable to this article.

Acknowledgments: Not applicable.

Conflicts of Interest: We confirm that there are no conflicts of interest to declare.

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