Giant maxillary gingival fibromatosis

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ABSTRACT

We present a case of both unusual pathology and severity – giant maxillary gingival fibromatosis – and discuss the disease and its management, accompanied by clinical imaging. This represents an overlap between maxillofacial and oral surgery, and may present as demonstrated in this case.

KEYWORDS

Fibromatosis – Gingival – Maxilla

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Case report

A 40-year-old woman presented to a South African tertiary hospital ear, nose and throat clinic with an approximately 15-year history of painless and slow-growing palatal masses. This was the first presentation to medical care regarding the problem. Her principal complaint was difficulty in eating, particularly trapping food within the oral cavity. She also raised a concern regarding a change in her vocal quality. Past medical history included major depressive disorder; she received amitriptyline, risperidone and citalopram. There was no family history of note.

The general clinical examination was unremarkable. Examination of the oral cavity showed severe dental and gingival disease; all teeth were carious and severely eroded. No trismus was present, and the tongue and floor of the mouth were normal. Two large discrete wing-like projections arose from the medial aspect of the upper alveolus, overlapping across the midline and largely filling the palatal vault. On palpation, these masses were smooth, firm and non-tender with subtle mobility (Fig 1). The soft palate and oropharynx were normal.

Baseline haematological investigations were normal. Uncontrasted computed tomography (Fig 2) showed no bony component to the lesions, nor any underlying alveolar bony abnormality. A provisional diagnosis of giant maxillary gingival fibromatosis was made and surgical excision offered.

General anaesthesia was achieved with nasotracheal intubation. Attempts were made to elevate the mucosa covering the lesions but this was not possible. The lesions were excised using monopolar diathermy. The surgical aim was

to remove the excess tissue and to eliminate the false pockets between the lesions and the palate. Gingival contour was restored alongside a complete dentectomy. The patient received 2 days of perioperative intravenous antibiotics and antiseptic mouthwash, given the severity of the dental disease. The postoperative period was otherwise uneventful and the patient was discharged on the third postoperative day.

Macroscopic pathological analysis revealed the lesions as measuring 35 × 18 × 10 mm (left) and 30 × 20 × 15 mm (right). The cut surface of the lesions was pale and homogeneous. Microscopic examination of the two palatal lesions revealed similar polypoid structures lined with proliferative squamous epithelium, with an underlying dense hypocellular and hypovascular collagenous stroma (Fig 3). Focal areas showing interlacing bundles of spindled-shaped to stellate cells were seen in the underlying stroma, and appeared to run in all directions. The surface epithelium exhibited long, slender rete ridges that extended deep into the underlying fibrous connective tissue stroma. Odontogenic epithelial rests and dystrophic calcifications were absent. These morphological features were compatible with gingival fibromatosis.

Immunohistochemistry revealed that beta-catenin and smooth muscle actin stains were both negative. Smooth muscle actin is a myofibroblast marker while beta-catenin is typically positive in deep and desmoid fibromatosis; however it is negative in superficial fibromatosis.

The patient was reviewed at 1, 3 and 12 months postoperatively. The surgical sites healed rapidly, with no evidence of recurrence of the lesions (Fig 4).

Figure 1 The oral cavity at presentation

Figure 2 Axial computed tomography

Figure 3 Histological specimen (haematoxylin and eosin stain), a) ×10 magnification, b) ×40 magnification

Figure 4 The oral cavity 3 months following surgery

Discussion

Several terms have been used to describe this pathology, including anatomical and idiopathic gingival fibromatosis. A genetic basis has also been reported and the term hereditary gingival fibromatosis applied.¹ Generalised gingival swellings may be subdivided into granulomatous, oedematous, exophytic or fibrous enlargements. Fibrous enlargements may be drug induced, such as related to phenytoin, calcium channel blocking drugs and ciclosporin. Systemic diseases such as mucopolysaccharidosis may also rarely be associated with fibrous gingival enlargement.

A presumptive clinical diagnosis of gingival fibromatosis may be made, although confirmatory histopathology is recommended. Basic periodontal care may comprise management in early forms of the disease but, in cases in which the lesions interfere with oral hygiene, surgical removal is recommended.² Ribeiro-Júnior and colleagues reported a

plastic reduction technique of gingival fibromatosis modified for use in tooth-bearing areas.⁵

This case serves to highlight this unusual pathology which may present to the ear, nose and throat surgeon. Lesions such as these frequently represent an overlap between maxillofacial, oral surgery and ear, nose and throat. This rare case of particularly bulky disease is probably related to a significant delay in clinical presentation.

References

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