Multiple Lesions in the Upper Jaw

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ABSTRACT

Buccal exostoses are benign, broad-based surface masses of the outer or facial aspect of the upper jaw (maxilla) or, less commonly, the lower jaw (mandible). They begin to develop in early adulthood and may very slowly enlarge over years. We report here an adult man with multiple masses of the maxilla above the teeth.

Keywords: Bony protuberances, exostosis, multiple masses, upper jaw

Lesiones Múltiples en el Maxilar Superior

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RESUMEN

Las exostosis bucales son masas benignas de superficies de amplia base, observables como un aspecto externo o facial de la mandíbula superior (maxilar) o, menos comúnmente, la mandíbula inferior (quijada). Las exostosis comienzan a desarrollarse temprano en la vida adulta, y puede agrandarse muy lentamente con los años. Reportamos aquí el caso de un hombre adulto con múltiples masas del maxilar superior por encima de los dientes.

Palabras claves: Protuberancias óseas, exostosis, masas múltiples, maxilar superior

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INTRODUCTION

Bony swellings that develop in the mouth come in a number of shapes, sizes and positions (that is, either in the midline of the roof of the mouth, the tongue side of the lower jaw or the cheek side of both upper and lower jaws). These bony swellings are given the 'technical' names of *exostoses* or *tori*. Tori and exostoses are nodular protuberances of mature bone, the precise designation of which depends on anatomic location (1–5). Torus palatinus (TP) and torus mandibularis (TM) are the two most common intraoral osseous outgrowths (6, 7). Torus palatinus is a sessile, nodular mass of bone that occurs along the midline of the hard palate. Torus mandibularis is a bony protuberance located on the lingual aspect of the mandible, commonly in the canine and premolar areas. Buccal and palatal exostoses are multiple bony nodules that occur less frequently than tori (1, 2, 4). Buccal exostoses occur along the buccal aspect of the maxilla or mandible, usually in the premolar and molar areas. Under the general term, exostoses are described as non-pathologic, localized bony protuberances that arise from the cortical bone and sometimes from the spongy layer (7). Such developmental anomalies, or hamartomas, are not pathologically significant, and they most frequently develop in the human jaw bone (6). They begin to develop in early adulthood and may very slowly enlarge over the years (6, 7). The aetiology has been investigated by several authors; however, no consensus has been reached. Some of the postulated causes include genetic factors, environmental factors, masticatory hyperfunction and continued growth (5–7).

Recently, several authors have postulated that the aetiology of exostoses consists of an inter-play of multifactorial genetic and environmental factors (8–11). The histologic features of exostoses are identical (11, 12). These are described as hyperplastic bone, consisting of mature cortical and trabecular bone (12). The diagnosis of buccal exostoses is based on clinical and radiographic findings. They usually require no treatment. Biopsy for diagnostic support is usually not recommended. There is no malignant potential to this lesion (1–3).

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CASE REPORT

A 45-year old man, without relevant medical history, presented at the clinic for routine dental examination. The intraoral examination revealed multiple masses of the maxilla just above the teeth. He had no discomfort or pain from the masses over the past years. There was no family history of similar lesions or intestinal polyps.

Physical examination of the oral cavity revealed large, bilateral overgrowths located on the buccal aspect of the mandible in the incisal, premolar and molar areas (Fig. 1).

Fig. 1: The intraoral examination revealed large, bilateral overgrowths located on the buccal aspect of the mandible in the incisal, premolar and molar area.

The lesions were bony-hard on palpation. The overlying mucosa was normal. Further physical examination was unremarkable. Radiographic examination revealed well-defined ovoid radiopacities superimposed over the roots of the premolars (Figs. 2–3).

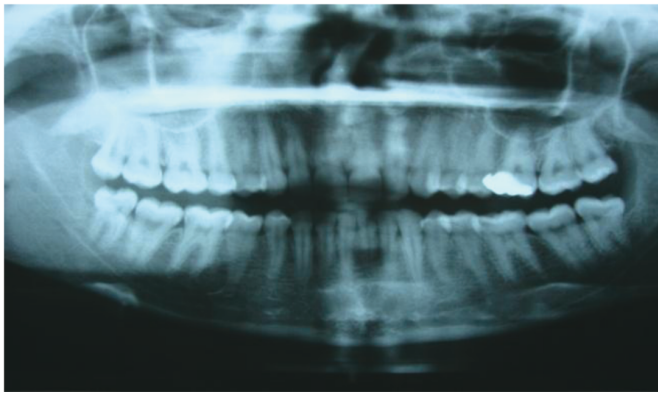

Fig. 2: The panoramic radiography of the same patient.

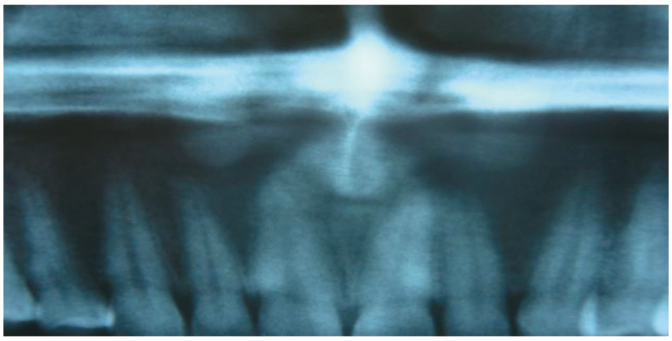

Fig. 3: Radiographic examination revealed well-defined ovoid radiopacities superimposed over the roots of the premolars in the maxilla.

DISCUSSION

Buccal exostoses are superficial masses on the bone and are fairly easy to remove. They are slow growing tumours or masses that do not invade the deeper tissues of the bone. Exostoses are not a bone disease, but a developmental abnormality (outgrowth) of the bone. They usually do not cause any problems unless they become large enough to cause pressure on surrounding blood vessels (2–5). They usually occur in the late teens and early adult years, and may continue to enlarge slowly over time (1). The aetiology of multiple exostoses remains unknown, although it has been suggested to be the outcome of a mild, chronic periosteal inflammation (8–10).

It remains important to distinguish exostoses from early osteosarcomas and chondrosarcomas. Furthermore, the patient should be evaluated for Gardner's syndrome if he or she presents with multiple bony growths not in the classic buccal exostoses locations. Intestinal polyposis and cutaneous cysts or fibromas are other common features of the autosomal dominant Gardner's syndrome (2–6). The importance of this syndrome is the development of multiple intestinal polyps, which have a very high potential for malignant transformation. When Gardner's syndrome is suspected, the patient should be referred to the dermatologist; a colonoscopy should also be performed (4–7). Surgical resection is sometimes indicated for exostoses if the bony outgrowths become so large that they interfere with function and denture placement (1).

In the index case, it was assumed that the presence of multiple bony changes of the maxilla warranted further investigation. In accordance with these observations, the clinical differential diagnoses considered were multiple buccal exostoses, idiopathic osteosclerosis, osteomas, Gardner's syndrome, cemento-osseous dysplasias and multiple odontomas. Investigation of the skin and ileocolonoscopy excluded Gardner's syndrome as a diagnosis in this patient. In retrospect, investigation for Gardner's syndrome

might not have been required because of the typical buccal location of the exostoses. Finally, the exostoses were not removed because the patient had no complaints about their positions.

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