CASE REPORT

Multi lobulated large ivory osteoma of ascending ramus: A case report

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ABSTRACT

Osteoma is a benign often asymptomatic neoplasm. Peripheral osteomas, the involvement of mandible and maxilla are very rare. In this case report, the growth was present on the mandible with lobulated on the lateral aspect of the ascending ramus with involvement of posterior and medial aspect of ramus at the level of lingua with an overall size of 5 cm.

Key words: Mandible, maxilla, peripheral osteomas

INTRODUCTION

Osteoma is a benign often asymptomatic neoplasm, consisting of well-differentiated mature bone. These lesions are arising from bone and soft tissues. It is divided into central, mainly developed from endosteum\(^1\); peripheral, developed from periosteum and extra osseous, very rarely from muscle tissues.\(^2\) Among peripheral osteomas, the involvement of mandible and maxilla are very rare and mainly found in the frontal, ethmoid, and maxillary sinuses.\(^3\)

Recently, Baena et al, reported an osteoma in a 25 year aged male patient of approximately 1.5 cm in the mandible on the buccal plate, distal to the mandibular foramen and above the external oblique line.\(^4\) In another case study, peripheral osteoma arising from the buccal plate of the alveolar ridge of the maxilla is reported.\(^5\) However multilobulated, large osteoma present in the lateral aspect of the mandible is seldom reported. In this study, an osteoma of 5cm in a 43 year old female patient located in ascending ramus of the mandible is reported. This case study is significant for the rarity of its presentation.

CASE REPORT

A 43 year old female patient presented with a swelling on the right cheek. Previous history revealed atraumatic to the site which was noticed by the patient since the past three years. It had slow and progressive growth until a visible deformity could be seen in the right side of the cheek, causing concern to the patient. General clinical examination showed no relevance. Local examination showed a painless, hard cauliflower shaped growth over the angle of the mandible extending towards ascending ramus laterally and posterior aspect was protruding towards medial aspect of the ramus at the level of lingua (Figure 1A). The patient could open her mouth normally with adequate inter incisal opening. Bony growth was evident in magnetic resonance image (MRI), which was extending from the lateral surface of the ascending ramus, posterior and medial aspect of ramus (Figure 2). Laterally, the growths were multi lobulated. Size of each lobe was 2.5cm, 1.5cm, 1cm (Figure 1B) and extended up to the neck of the condyle; posterior and medial aspect of ramus of mandible at the level of lingula were approximately less than one cm. The submandibular incision was made and extended till adequate exposure of the surgical site. Flap elevated, careful dissection was made not to injure marginal mandibular nerve. Periosteal dissection was carefully made to reflect the periosteum from the osteoma over the ascending
ramus. MRI showed no muscle involvement by the tumour cells. The sessile masses were removed by rotating the bur with copious saline irrigation. Trauma due to the traction of the flap caused transient mandibular nerve paresthesia. Patient was reviewed after six months and the normal functions were completely recovered.

**DISCUSSION**

Osteomas are benign, very slowly growing bony masses generally arising from the craniofacial skeleton. They typically arise from bones of membranous origin. Clinically the lesion was found to be bony, fixed, nontender, and nonerythematous. The periosteum over the tumor showed no pathological abnormality. They are generally divided into two subtypes: 1) ivory, when they are made of uniformly dense bone (lamellar and/or woven), and 2) cancellous or soft, when spongy cancellous tissue predominates. The true incidence of this lesion in humans is unknown because many are discovered incidentally during routine diagnostic workups; the majority remains asymptomatic for life. Some consider this entity to be a reactive condition arising in the setting of trauma. The mandible is more commonly affected than the maxilla, with the sites of predilection being the lingual aspect of the body, the angle and the inferior border. In rare instances, osteomas may arise from soft tissues (e.g., tongue) presumably deriving from entrapped pluripotentialmesenchymal cell remnants. A genetically transmitted variant with multiple osteomas and intestinal polyposis is termed Gardner's syndrome. Cosmetic disfigurement may be a predominant symptom.

In this case report, the growth was present on the mandible with lobulated on the lateral aspect of the ascending ramus with involvement of posterior and medial aspect of ramus at the level of lingua with an overall size of 5 cm. The etiology of osteoma is unknown. The history of trauma during childhood as a cause of tumor induction is repeatedly discussed in the literature. However, this putative pathomechanism is unlikely to establish pathogenesis due to the high number of facial traumas and the low number of osteoma. The lesions generally arise in close proximity to areas of muscle attachment. The chief complaint of all of the patients was a palpable contour deformity. Clinically, this neoplasm may be silent for years without any symptoms and diagnosed only when it becomes big enough or observed coincidentally during radiological investigations. Osteomas in the cranio-maxillofacial region are commonly removed through a direct incision above the tumor. This method is simple and easy, but it leaves a scar, and the incision may need to be lengthened according to the size of the osteoma. Although in magnetic resonance imaging, aerated oral cavity (puffed cheek) appear hypodense images, and it is not always misleading to the lesion and adjacent structures because in lobulated types of osteoma the involvement of the muscle tissues and periosteum can be studied.
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REFERENCES


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