

# Multiple Mandibular Exostoses: A Rare Case Report

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## ABSTRACT

Multiple maxillary and mandibular exostoses are common localized overgrowths of the bone. They are non-neoplastic and are thought to be reactive or developmental in origin. These exostoses need to be accurately distinguished from the other more diagnostically significant lesions, notably from the exosteal osteomas. The aetiology of exostosis has been investigated by different authors, but no consensus has been reached so far. We are reporting a rare case of an otherwise healthy 38 year old female with multiple exostoses in the mandibular anterior region, which correlated both clinically and radiographically.

## INTRODUCTION

Exostoses and *tori* are well known by anthropologists and the first article on them was published by Fox [1]. Exostoses, osteomas and *tori* are bone nodular protuberances whose precise designations depend on the anatomical locations [2]. Exostosis need to be distinguished from other lesions, notably osteomas, which may be diagnostically very significant [3].

Exostoses are benign bone growths of the facial skeletons that occur along the maxillary or the mandibular regions and are frequently located in the pre-molar and the molar regions [4].

Osteomas are bone lesions with different onsets and slow growth, that may be divided into: (1) cranial and mandibular exophytic osteomas (or eburnean exostoses); (2) paranasal sinuses, facial bones and orbit osteomas (orbital cavity osteomas); (3) exostoses or bone islands, and (4) long bone superficial osteomas (justacortical) [3,5].

*Torus palatinus* and *mandibularis* are the two most common intraoral growths; *palatinus torus* is a nodular bone mass that occurs along the midline of the hard palate and *mandibularis torus* is a bone protuberance which is located on the lingual aspect of the mandible, normally in the region of the canine and the pre-molars [2]. The histological characteristics of *tori* and other types of exostoses are identical, that are described as hyperplastic bones, which comprise the mature trabecular and the cortical bones [6]. This article has reported a rare case of multiple bony exostosis which was present in the labial part of the mandibular anterior region.

## CASE REPORT

A female patient who was aged 38 years reported to the Department Of Periodontics, Subharti Dental College and hospital, Meerut (U.P), India for a routine check up and oral prophylaxis. On clinical examination, it was found that her oral hygiene status was poor and multiple bony nodules were found in the lower anterior region of her mandible. The patient had not previously noticed the "nodules" and she was otherwise healthy. Her medical history was non contributory and there was also no history of any other family illness or any tissue tumours which were suggestive of any syndrome.

On examination, the patient was found to be afebrile and there was no lymphadenopathy. Intraorally, an intact dentition was present, and all the mucosal surfaces appeared to be healthy. Multiple bony protruberances were evident along the labial aspect of the mandible [Table/Fig-1]. The approximate diameter of the bony

**Key words:** Multiple exostoses, Osteoma

swellings varied from 1-1.5 mm. On palpation, 5 round, firm, raised, nontender protuberances were diagnosed. The patient was then advised a normal Intra Oral Periapical Radiograph (IOPA) and an Orthopantogram (OPG) [Table/Fig-2]. The radiographs confirmed the findings and multiple radioopaque masses were found in the



**[Table/Fig-1]:** Depicts multiple bony protuberances at the labial aspect of the mandible



**[Table/Fig-2]:** Shows multiple radiopaque masses at the lower anterior of the mandible

mandibular anterior region, which extended from canine to canine, which demonstrated the bucco-lingual growth of the alveolar bone in the region of the bony swellings. Thus, the radiographic findings correlated with the clinical examination and in light of these findings, a diagnosis of multiple mandibular exostosis was made.

## DISCUSSION

Multiple exostoses are classically seen as a series of discrete swellings along the buccal aspect of the alveolar bone, and a clinical experience would suggest that they occur less frequently than do the tori. However, the information concerning their incidence is not available. The aetiology of multiple exostosis remains unknown, although an increased occlusal loading of the teeth in the involved areas has been suggested [3]. The most widely accepted hypotheses are: nutritional disorders, heredity, mastication hyperfunction, and environmental factors [2, 6, 7-9].

The highest prevalence was found in the adults who were aged 60 years or more (21.7%), as compared to the group which was aged 13 to 19 years (7.8%). The other age groups of 20 to 29 years, 30 to 39 years, 40 to 49 years and 50 to 59 years demonstrated similar frequencies [8].

As for the gender, there is a higher prevalence in the male subjects [8]. Radiographically, they present in the maxilla as well-delimited radiopaque masses, many times hiding the details of the teeth and the maxillary sinus [9]. In the mandible, they simulate the mandible lesions such as bone deformities, osteomyelitis and the Gardner's syndrome; but anamnesis and appropriate laboratory tests can easily provide the definite diagnosis [10].

The mucosa that recovers the bone protuberance is normally superficial and it has a normal appearance, but if it is exposed to trauma, it may become whitish and ulcerated [11].

## CONCLUSION

An accurate diagnosis of multiple exostosis is important and the exostoses should be distinguished from the osteomas (especially the exosteal osteomas), the organized subperiosteal hematomas, a mature ossifying fibroma that has caused expansion of the cortical plate, and early osteosarcomas or chondrosarcomas.

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