

Letter to the Editorts

Osteoblastoma of Mandible:A Rare Clinical Presentation

Vijaylaxmi Madalli¹, Shrinivas M. Basavaraddi²,
Venkatesh Naikmasur¹, Krishna Burde¹, Priya Horatti³

1. Dept. of Oral Medicine and Radiology, SDM College of Dental Sciences, Sattur, Dharwad, India

2. Dept. of Orthodontics, SDM College of Dental Sciences, Sattur, Dharwad, India

3. Dept. of General Dentistry, SDM College of Dental Sciences, Sattur, Dharwad, India

Dear Editor in-Chief

Osteoblastoma is an osteoid and bone forming benign tumor of bone. It is an uncommon lesion that accounts for 1% of all bone tumors and about 3% of all benign bone tumors (1). In 1956, the term benign osteoblastoma was coined by Jaffe and Lichtenstein (2). Etiology of osteoblastoma is unknown; however it is considered to be a true neoplasm of bone (3). It most commonly affects vertebral column, sacrum, calvarium, long bones and small bones of hand and feet. First case in the jaws was reported by Borello and Sedano in 1967(4). Within jaws mandible is more commonly affected than maxilla. Most of them affect mandibular posterior region. However there is one report of the lesion affecting mandibular incisor region. Males are most commonly affected than females 2:1 (5). Seventy five percent of the lesions occur under the age of 20 yrs average age is 18 yrs. Size is between 2-4 cm but may be as large as 10 cm (5).

Radiographically the lesion may be diffused or may show some sign of cortex. Lesions often have soft tissue capsule around the periphery

indicating that this tumor is more mature in the central regions where there is evidence of abnormal bone. Internal structure may be radiolucent in early developing tumors may show varying degrees of calcification. Internal structure may take a pattern of sunray pattern or fine granular pattern. Osteoblastomas can expand bone, but usually a thin outer cortex is maintained. They may invaginate maxillary sinus or middle cranial fossa (5). Computed tomography is a useful adjunct to the diagnosis and is of great value in determining the extent of the tumor as well as degree of calcification. Tumor appears as a well defined expansile lesion with prominent calcified rim. MR imaging shows hyper intense T2-weighted images. Scintigraphy also has been reported to be of some value in the diagnosis .But this modality merely shows bone activity that is osteoblastic or osteolytic which can occur in bony tumors. The results obtained from this modality are not considered specific (6).

Histopathologically, the tumour is characterized by the formation of osteoid trabeculae, which can become calcified to a varied degree. Osteoblasts

Received: 04/Feb/2013

Accepted: 10/March/2013

Address communications to: Dr Vijaylaxmi Madalli, Department of Oral Medicine and Radiology, SDM College of dental sciences,Sattur,Dharwad. India.

Email: drvijaylaxmi@yahoo.co.in

lining the tissue are abundant. The connective tissue stroma is loose and vascular. Numerous multinucleated giant cells are seen both in the stroma and adjacent osteoid (7). Histologically benign osteoblastomas can be confused with osteosarcomas that are osteoblastic. In osteosarcoma, osteoblasts and osteocytes are pleomorphic, and the stroma is malignant. Special difficulty lies in the osteoblastomas in which there is more compactness of the bone and stroma, leading to increased cellularity. However, in the benign osteoblastoma stromal connective tissue cells are neither large nor sarcomatous, mitoses are rare, sarcoma giant cells are absent and cells enmeshed in osteoid matrix are relatively small and uniform (8). Dorfmann and Weiss have distinguished osteoblastic tumors into four categories based on clinical radiological and histopathological features; Innocuous looking osteosarcomas that resemble osteoblastomas, rare osteoblastomas that have undergone spontaneous transformation into osteosarcomas, very rare osteoblastomas that show pseudosarcomatous histologic features but pursue a benign course, locally aggressive osteoblastomas that are likely to recur and do not metastasize (9). Surgical excision of osteoblastoma is the preferred method. A conservative approach curettage or local excision is curative. Recurrence following surgery is rare (10). Though osteoblastoma of the jaws is a rare lesion, swellings in this region should give a suspicion of osteoblastoma.

Acknowledgements

The authors declare that there is no conflict of interests.

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