Floret-like giant cells in intra-osseous schwannoma

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Abstract Floret-like giant cells are very commonly seen in neurofibroma and as an indication to be associated with neurofibromatosis type 1 gene. This particular case of intraosseous schwannoma of mandible showing such giant cells, which is rarely reported.

Keywords: Floret, giant cells, neurofibroma, schwannoma

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Schwannoma is a slow-growing benign neoplasm derived from Schwann cells, which are sheath cells that cover myelinated nerve fibers. The soft tissue of the head-and-neck region is one of the most common sites for benign nerve sheath tumors. Intra-osseous occurrence is very rare.[1] This is a case of intraosseous schwannoma [Figure 1] of the mandible, with typical Antoni-A type of histopathological pattern [Figure 2], with floret-like giant cells [Figure 3].

Floret-like giant cells are typical multinucleated cells with nuclei arranged in a wreath like or linear pattern.[2] These are reported to be seen in neurofibromas (sporadic), neurofibromas with neurofibromatosis type 1(NF-1), pleomorphic lipoma, giant cell collagenoma, giant cell fibroblastoma, solitary fibrous tumor and gynecomastia. Immunohistochemically, these cells are positive for vimentin and CD-34 but negative for S-100 and CD68.[3,4]

It is commonly associated with neurofibroma, that to neurofibroma with NF-1. A retrospective study by Taungjaruwinai and Goldberg *et al.* found out that the presence of floret-like giant cells in neurofibromas might be a clue to the presence of NF-1.[2] However, the results of a study by Magro *et al.* showed that there is no statistically significant correlation between the presence of these cells and neurofibromas with NF-1, as many cases of sporadic neurofibroma, also showed similar cells. They concluded that these giant cells most likely representing a morphological reactive change of the indigenous dermal/endoneurial fibroblasts or dendritic

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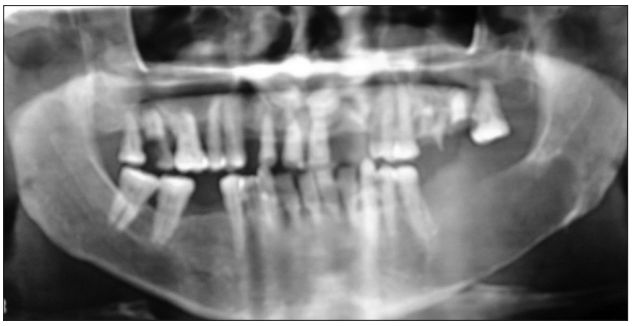

Figure 1: Well-defined radiolucent lesion in the lower left region of mandible

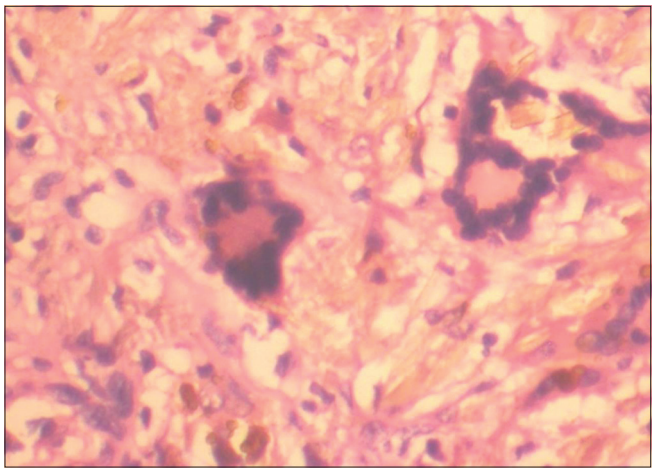

Figure 3: Floret-like giant cells with nuclei arranged in a wreath like manner

cells in response to unknown micro-environmental stimuli.[5]

A thorough search of English language literature showed no case report of schwannoma with floret-like giant cells. Here, the lesion is solitary and intraosseous, which is showing typical features of schwannoma. The patient is not having any features of NF-1.

We wanted to highlight this case report to emphasize the presence of such giant cells in schwannoma (which is not reported earlier), and also to look for the presence of floret-like giant cells in cases of schwannoma retrospectively.

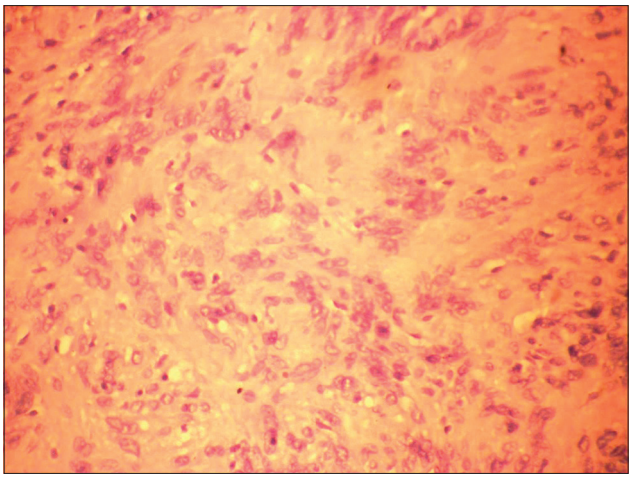

Figure 2: Spindle cells arranged in a palisading manner around the verocay bodies

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Conflicts of interest

There are no conflicts of interest.

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