

These tumors are most commonly seen in 3<sup>rd</sup> to 5<sup>th</sup> decade of life with a male preponderance. These lesions occur in maxilla and mandible with nearly the same frequency in the anterior or premolar portion of the jaw. In contrast, classic ameloblastoma occurs primarily in the posterior areas of mandible. Maxillary lesions are considered more complex as they have easy access to the adjacent vital structures and the maxillary sinus. Besides this, the very thin cortical bone of the maxilla forms a weak barrier for the spread of these tumors<sup>4</sup>.

On radiograph and CT, desmoplastic ameloblastoma is characterised by mixed radiolucent & radiopaque appearance often described as honeycomb appearance. It presents a multifocal appearance of minute or punctate osseous flecks because of the infiltrative growth pattern of tumor into surrounding bone with simultaneous vigorous osteoblastic activity<sup>5</sup>. Radiologically, the lesion mimics benign fibro-osseous lesions. Rarely, the tumor may be unilocular or multilocular and may occur in the molar region of mandible<sup>6</sup>. These lesions, however exhibit very high incidence of poorly defined borders, which is in contrast to usual fibrous lesion that usually have well defined margins. Computed tomography delineates the internal structure and extent of the lesion accurately and is particularly helpful in determining the border of the lesion and invasion in to the adjacent structures<sup>7</sup>.

MR Imaging may show heterogeneous hypo to intermediate signal intensity on T1-weighted images and heterogeneous hyperintensity on T2 weighted images. Heterogeneous and moderate enhancement may be observed on post-gadolinium T1-weighted images<sup>8</sup>. Histopathology of desmoplastic ameloblastoma reveals small cords of odontogenic epithelium separated by dense, fibrous, connective tissue. Spicules of mature lamellar bone trabeculae have been reported in intimate contact with the tumor, and invasion has been demonstrated<sup>9</sup>.

Desmoplastic ameloblastoma is more aggressive than its other variants. This is suggested by its potential to reach large size, production an early invasion of adjacent structures, diffuse & ill-defined radiographic appearance and the histological presence of bone invasion<sup>9</sup>. Recent literature describes the occurrence of hybrid ameloblastoma with histological features of follicular / plexiform ameloblastoma with features

of desmoplastic ameloblastoma<sup>10</sup>. Radiologically, it may show feature of desmoplastic and conventional ameloblastoma i.e. mixed radiodense-radiolucent lesion along with purely cystic component<sup>11</sup> as was seen in our case.

Thus, since the nature of the lesion, its interface with normal bone and its extent is significant for optimal management, preoperative radiological evaluation of lesion in the anterior jaw is very essential. Fibro-osseous appearing lesion may be characteristic of desmoplastic ameloblastoma on CT. CT may also delineate the concomitant presence of cystic component of the mass that should arouse the suspicion of hybrid ameloblastoma. A thorough radiological examination will help making a preoperative diagnosis, guiding the site for biopsy and thus reaching a definitive diagnosis preoperatively, preventing errors in formulating treatment plans and achieving higher cure rates in such lesions.

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