

# Granular Cell Type Ameloblastoma - Recurrence in a Peripheral Location: A Rare Case Report

Manjiri Thakur<sup>1</sup>, Chandrashekhar Bande<sup>2</sup>, Dinesh Mohale<sup>3</sup>, Vinita Tekchandani<sup>3</sup>, Ruchika Gupta<sup>3</sup>

<sup>1</sup>Professor & Head, Department of Oral Pathology and Microbiology, Swargiya Dadasaheb Kalmegh Smruti Dental College and Hospital, Nagpur, Maharashtra, India, <sup>2</sup>Professor, Department of Oral and Maxillofacial Surgery, Swargiya Dadasaheb Kalmegh Smruti Dental College and Hospital, Nagpur, Maharashtra, India, <sup>3</sup>PG Students, Department of Oral Pathology and Microbiology, Swargiya Dadasaheb Kalmegh Smruti Dental College and Hospital, Nagpur, Maharashtra, India

Peripheral ameloblastoma is a relatively uncommon odontogenic tumor that is histologically identical to the classic intra-osseous ameloblastoma. It originates in the soft tissues of the oral cavity namely alveolar mucosa or gingiva.<sup>1</sup> Granular cell ameloblastoma is a rare variant of ameloblastoma which accounts for only 5% of all ameloblastomas as stated by Hartman.<sup>2</sup> Histopathologically it has numerous large granular cells. These usually form the central mass of epithelial islands and cords. Ultrastructurally, these granules represent lysosomal aggregates.<sup>3</sup> Reichart *et al.* reported a 33.3% recurrence rate for granular cell ameloblastoma, which was higher, compared to the more common follicular, plexiform, and acanthomatous subtypes.<sup>4</sup>

A 32-year-old female from Nagpur came to the department with a chief complaint of growth in the left mandibular posterior region since 2 years. Intra orally a fibrous tissue growth in the buccal posterior region was seen approximately 3 × 4 cm<sup>2</sup> in size with round to oval shape, with a reddish color and regular surface (Figure 1). Swelling was firm in consistency with well-defined borders. Patient gave a history of hemimandibulectomy for ameloblastoma of left side 5 years back. Incisional biopsy was done in which the diagnosis was given as recurrent ameloblastoma - granular cell type. Considering the lesion within the soft tissue the surgical treatment modality was planned as excision of the ameloblastoma. The surgical procedures are carried out under general anesthesia with excision of the lesion and reconstruction plate was placed. Histopathological

examination of the excisional mass shows odontogenic epithelium arranged in follicle of various sizes (Figure 2).

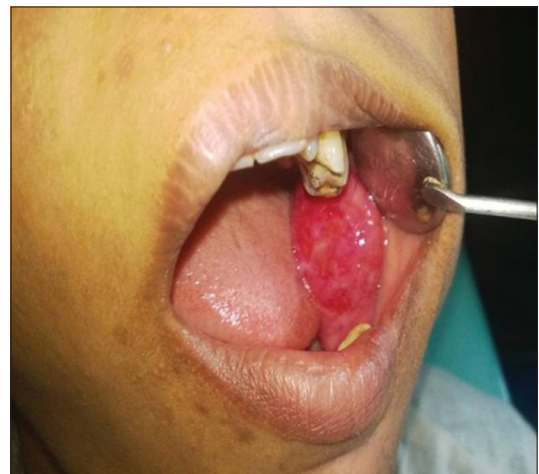


Figure 1: Preoperative intraoral view

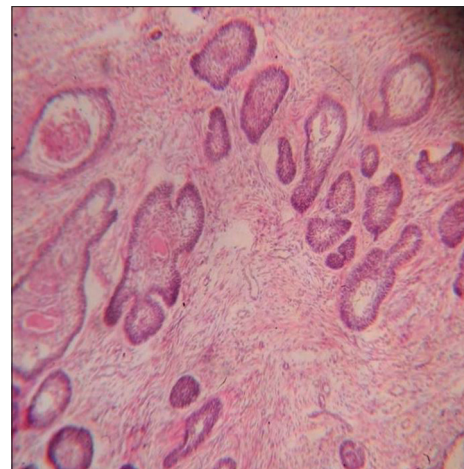


Figure 2: Low power view (×10): The connective tissue shows odontogenic epithelium arranged in the follicle of various sizes. The follicles show peripherally arranged tall columnar ameloblast like cells while the central portion shows stellate reticulum like cells, and granular cells with coarse eosinophilic granules

#### Access this article online

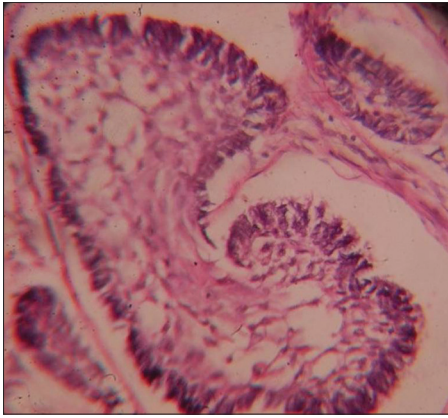


www.ijsscr.com

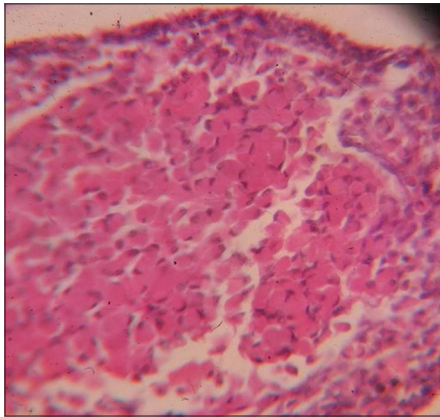
Month of Submission : 02-2015  
 Month of Peer Review : 03-2015  
 Month of Acceptance : 03-2015  
 Month of Publishing : 04-2015

#### Corresponding Author:

Dr. Manjiri Thakur, 141 Zenith Hospital, Shivaji Nagar, Nagpur - 440 010, Maharashtra, India. Phone: +91-9422146692.  
 E-mail: thakur.manjirimuk@gmail.com



**Figure 3:** High power view (×40): The follicles show peripherally arranged tall columnar ameloblast like cells while the central portion shows stellate reticulum like cells



**Figure 4:** High power view (×40): The follicles show granular cells with coarse eosinophilic granules

The follicles show peripherally arranged tall columnar ameloblast like cells while the central portion shows stellate reticulum like cells (Figure 3). Many follicles are showing granular cells with coarse eosinophilic granules (Figure 4).

The final histopathological diagnosis was given as recurrent granular cell ameloblastoma.

#### Points to Ponder

- Ameloblastoma in the extralingival location, i.e. in the buccal mucosa are extremely rare.
- Granular cell ameloblastomas may rarely behave in a malignant fashion giving rise to metastasis.<sup>3</sup>

#### REFERENCES

1. Yadav R, Gulati A, Sharma R, Narain S. Peripheral ameloblastoma: Review of literature and case presentation. *Indian J Multidiscip Dent* 2011;1:135-9.
2. Hartman KS. Granular cell ameloblastoma. *Oral Surg Oral Med Oral Pathol* 1974;38:241-53.
3. Arora S, Mujhib A, Diwakar G, Amberker V. Granular cell ameloblastoma: A case report with a brief note on review of literature. *Egypt J Ear Nose Throat Allied Sci* 2014;15:267-9.
4. Reichart PA, Philipsen HP, Sonner S. Ameloblastoma: Biological profile of 3677 cases. *Eur J Cancer B Oral Oncol* 1995;31B:86-99.

**How to cite this article:** Thakur M, Bande C, Mohale D, Tekchandani V, Gupta R. Granular Cell Type Ameloblastoma - Recurrence in a Peripheral Location: A Rare Case Report. *IJSS Case Reports & Reviews* 2015;1(11):74-75.

**Source of Support:** Nil, **Conflict of Interest:** None declared.