Granular cell tumor (GCT) is an infrequent and usually benign neoplasm which is found predominantly in the head and neck region. More than half of the head and neck GCT originates from tongue. Although it is most frequently seen in 4th to 6th decades of life, we presented an interesting case of giant GCT located under the anterior tongue, filling the floor of the mouth was resected by transoral route in a 2.5 year old patient.

Key Words: Child; granular cell tumor/pathology; tongue neoplasms/pathology/surgery.

Granular cell tumor is an unusual lesion probably arising from Schwann cells. It was first described by Abrikossoff in 1926. It is frequently found in the head and neck region, where the tongue is the most commonly affected site. Granular cell tumor is quite rare in pediatric age. We reported an interesting case of giant GCT in a 2.5 year old patient.

A giant granular cell tumor of the tongue in a pediatric case

Bir çocukta dil orijinli pediatrik dev granüler hücreli tümör

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CASE REPORT

A 2.5 year-old girl presented with a 3 month history of painless mass under the anterior tongue and all over the floor of the mouth. Dysphagia, odynophagia or weight loss was not present. Medical history of the patient was not remarkable.

A 3x5 cm, non-tender, firm mass under the anterior tongue, filling the floor of the mouth was present on physical examination. Overlying mucosa was intact. The mobility of the tongue was deteriorated by mass effect of the tumor. Rest of the head and neck examination was unremarkable.

Computed tomography with contrast enhancement of the region revealed a 3x5 cm, oval shaped, heterogeneous mass without any bone destruction (Fig. 1a).

The patient underwent total excision of the lesion (Fig. 1b) with primary closure of the incision site under the anterior tongue and the floor of the mouth.
A giant granular cell tumor of the tongue in a pediatric case

Histopathological diagnosis of the tumor was granular cell tumor (Fig. 2). Postoperative period was unremarkable and recovery was excellent. The patient was free of recurrence at 6th month follow-up visit.

DISCUSSION

Granular cell tumor or Abrikosoff’s tumor is an infrequent and usually benign neoplasm which is found predominantly in the head and neck region, especially in the tongue. More than half of the head and neck GCT originates from tongue. The tip, ventral, lateral borders could be affected. Other sites in the head and neck area include buccal mucosa, lips, palate, larynx, trachea, orbit, esophagus and cranial nerves. Most GCT are benign. Only about 2% exhibit malignant features (1,2,3: 2,3).

GCT most frequently seen in 4-6 decades of life. Female to male ratio is 2/1. These tumors are most-
A giant granular cell tumor of the tongue in a pediatric case

ly seen as a solitary, firm, painless mass. Mucosal ulceration is rare. The case presented was a 2.5 year old female child with a giant lingual GCT.

Electron microscopic and immunohistochemical studies have recently demonstrated a neural origin for GCT, which are most likely derived from schwann cells. Adult GCT stain positively with periodic acid-Schiff and antibodies to S100 protein, a marker for neural tissue.

Rhabdomyoma, leiomyoma, congenital epulis and other tumors with granular cytoplasm should be differentiated from GCT. On the other hand, pseudoepitheliomatous hyperplasia accompanied to GCT must be distinguished from well-differentiated squamous cell carcinoma.

Total surgical excision is the treatment of choice in GCT. Recurrence rate is 2-8% and especially higher in excisions with positive margins. Radiation therapy is not effective and reserved for patients who are poor surgical candidates and as an adjuvant therapy for malignant lesions. Total excision was performed to the present case.

It should be concluded from the study that one should include GCT in the differential diagnosis of lingual masses. Physical examination and radiologic imaging do not show any typical finding suggestive of the diagnosis of GCT, which can be based only on histologic findings.

REFERENCES