

Granular cell tumour (Abrikossoff's tumour) of the tongue

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DESCRIPTION

We report a case of a 43-year-old female patient, referred to the stomatology consultation by her general and family medicine doctor, for the observation of a 1-year-old lesion on the tongue. The patient reported that the lesion was painless and slow growing.

She had no relevant personal history or relevant usual medication. There were no smoking and/or alcohol habits.

Physical examination revealed a firm, well-circumscribed whitish lesion of about 1.5 cm in diameter, located at the posterior limit of the middle third of the dorsum of the tongue (figure 1).

Thus, an incisional biopsy was performed, whose histological study revealed the diagnosis of granular cell tumour (GCT) in the dorsal region of the tongue.

Given the result, we opted to perform an excisional biopsy under local anaesthesia (figure 2). The macroscopic sample had the dimensions of 1.5×0.9×0.4 cm, with whitish surface. Its anatomopathological study confirmed the diagnosis of GCT in the dorsal region of the tongue, and it also reported a submucosal lesion, consisting of proliferation of polygonal cells with large clarified granular cytoplasm Periodic acid–Schiff (PAS+), and with central, oval and monotonous nucleus. There was pseudoepitheliomatous hyperplasia (PH) of the lining. Regarding immunohistochemical analysis, the cells had marked and diffuse immunostaining for S100 protein (figures 3–5).



Figure 1 Image of lesion.

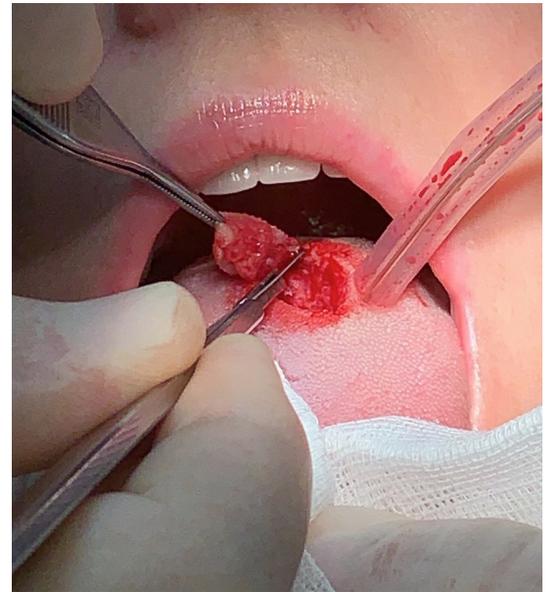


Figure 2 Excisional biopsy.

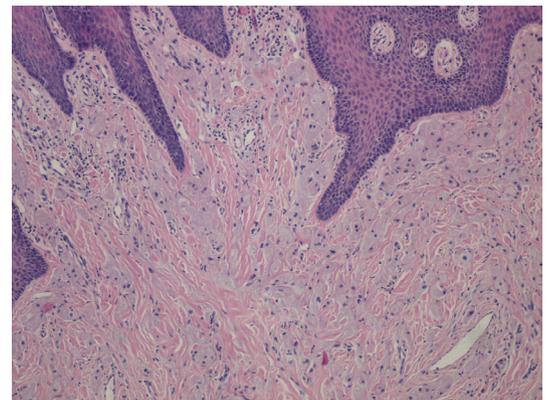


Figure 3 H&E (100× and 400×): poorly defined lesion composed of sheets separated by collagenous band. Cells are polygonal or spindle, with abundant and granular eosinophilic cytoplasm, and small nuclei.

In the postoperative period, the patient evolved without interurrences. There are no signs of recurrence of the lesion 1 year after the surgery.

GCT is an uncommon benign neoplasm that still reveals some controversial aspects. GCT can commonly occur in the oral cavity, particularly in the anterior part of the tongue.¹ Also known as Abrikossoff's tumour, is characteristically asymptomatic, with slow growth, and is often accidentally detected. It is characterised by the presence of a small, well-defined, submucosal nodular mass, about 1–3 cm in size, of firm consistency and usually



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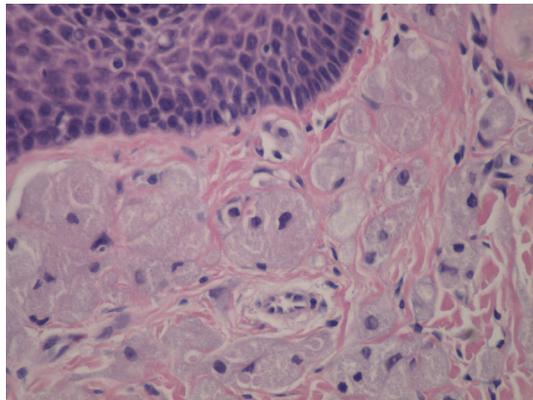


Figure 4 H&E (100× and 400×): poorly defined lesion composed of sheets separated by collagenous band. Cells are polygonal or spindle, with abundant and granular eosinophilic cytoplasm, and small nuclei.

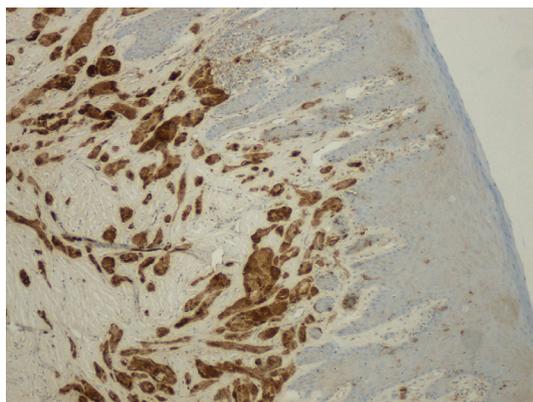


Figure 5 Immunohistochemistry S100 (100×): lesional cells expressing diffuse positivity for S100 protein.

covered by intact mucosa.² The estimated incidence of oral GCT is approximately 1:1.000 000 population per year. There are no distinct geographical or racial differences. Apparently, there is no explanation for the well-known female predilection.² The diagnostic hypothesis was fibroma, lipoma, neurofibroma, schwannoma and GCT. Neurofibroma and schwannoma should be the main considerations for tongue injuries. Lipoma and other benign mesenchymal neoplasms may present intraorally as asymptomatic nodules similar to the GCT. Traumatic fibroma is a common reactive lesion that should be included in the differential diagnosis.³

Learning points

- ▶ The importance of the relationship between clinical and histological and immunohistochemical aspects, all of which are essential to establish the correct diagnosis of granular cell tumour (GCT).
- ▶ Immunohistochemical analysis makes it possible to deepen the knowledge of the aetiopathogenesis of GCT as well as the possible association with other tumours.
- ▶ It is possible to perform a correct medical-surgical approach to this type of injury.

The persistence of the presence of S100 protein (pathognomonic marker for peripheral nerve sheath tumours) associated with anatomical similarities with peripheral nerve fibres supports this theory. In this case, the immunohistochemical analysis showed a positive chain for protein S100, which is considered sufficient for the proposed diagnosis⁴ (figure 5). The phenomenon of PH is uncommon in other benign connective tissue tumours but is frequent in GCT.¹

Although aggressive and malignant variants of this neoplasm have been described, most of the GCTs are benign. Complete excision of the lesion may not be always possible due to absence of capsule. Therefore, it is advisable to perform an excision with enough safety margin to reduce the probability of recurrence.

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