Oral lipoma of unusual size and location: a case report

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ABSTRACT  A lipoma is a slow-growth benign tumor of the adipocytes. In the oral cavity, it is more commonly observed in the buccal mucosa; other sites less affected are the tongue, floor of the mouth, and lips. The objective of this report is to describe an extensive tumor affecting the dorsum of the tongue and the therapeutic maneuver performed. A 63-year-old man was referred to our clinic for evaluation of a tumor in the dorsum of the tongue with 6 months of duration. The physical examination revealed an extensive nodule, asymptomatic, submucosal, in the dorsum of the tongue at the left that measured approximately 4 cm. On palpation, the lesion was mobile and had rubbery consistency. According to these findings, the diagnostic hypotheses were lipoma and neurofibroma. Hence, surgical excision was performed and during the procedure a yellowish and well-delimited lesion was observed. The surgical specimen floated in 10% formalin. The histopathological examination confirmed the diagnosis of lipoma. The patient is asymptomatic after 40 months of follow-up. This report describes an unusual presentation of lipoma on the dorsum of the tongue and demonstrates that this lesion can reach large proportions.

DESCRIPTORS  Lipoma; Tongue Diseases; Mouth Neoplasms; Tongue Neoplasms.

RESUMO  Resumo Lipoma oral de tamanho e localização incomuns: relato de caso  • Lipoma é um tumor benigno de crescimento lento dos adipócitos. Na cavidade oral, é mais comumente observado na mucosa jugal; outros sítios menos afetados são a língua, soalho oral e lábios. O objetivo deste relato é descrever um extenso tumor afetando o dorso da língua e a manobra terapêutica realizada. Um homem de 63 anos de idade foi encaminhado à nossa clínica para avaliação de um tumor no dorso da língua com 6 meses de duração. O exame físico revelou um nódulo extenso, assintomático, submucoso, no dorso da língua à esquerda, medindo aproximadamente 4 cm. À palpação, a lesão era móvel e tinha consistência borrachaide. De acordo com esses achados, as hipóteses diagnósticas foram lipoma e neurofibroma. Portanto, foi realizada excisão cirúrgica e, durante o procedimento, foi observada uma lesão amarelada e bem delimitada. O espécime cirúrgico flutuou em formalina a 10%. O exame histopatrulógico confirmou o diagnóstico de lipoma. O paciente encontra-se assintomático após 40 meses de acompanhamento. Este relato descreve uma apresentação incomum de lipoma no dorso da língua e demonstra que essa lesão pode atingir grandes proporções.

DESCRITORES  Lipoma; Doenças da Língua; Neoplasias Bucais; Neoplasias da Língua.

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• Received  Mar 4, 2015  • Accepted  Apr 16, 2015  • DOI  http://dx.doi.org/10.11606/issn.2357-8041.clrd.2016.106226
INTRODUCTION

Lipoma is a benign tumor of mature adipocytes that presents a slow-growing and is usually asymptomatic. The tumor’s consistency may vary from rubbery to flaccid, according to fibrous tissue amount.\textsuperscript{1,2} It usually has intact surface, but ulceration can occur in case of secondary trauma.\textsuperscript{3} Although being considered the most common mesenchymal neoplasm, this tumor is relatively uncommon on the mouth and the main sites affected are buccal mucosa, tongue, floor of the mouth, and lips.\textsuperscript{4}

Regarding the size, the tumor may vary from few centimeters to large proportions\textsuperscript{5} and the latter can cause significant alteration in the organ function, such as difficulty to speak, chew, and swallow.\textsuperscript{6} The aim of this study is to report an extensive lipoma involving the dorsum of the tongue. In addition, its clinical implications and treatment are also emphasized.

CASE REPORT

A 63-year-old man was referred to the Stomatology Department due to an extensive enlargement on the dorsum of the tongue with 6 months of duration: the medical history showed controlled diabetes; the intraoral examination revealed a well-delimited asymptomatic nodule, located on the dorsum of the tongue, measuring around 4.0 cm, and covered by normal mucosa (Figure 1A and 1B); on palpation, the lesion was mobile and rubbery. According to these findings, we raised the diagnostic hypotheses of lipoma and neurofibroma. A surgical excision was proposed and during the procedure a well-circumscribed yellowish lesion with a smooth surface was totally removed (Figure 2 and 3). The lesion floated in formalin solution (Figure 4). The histopathological examination exhibited a large number of mature adipocytes interspersed with bands of connective tissue. It also presented some small caliber congested blood vessels (Figures 5 and 6). Hence, the diagnosis of lipoma was confirmed. The patient is asymptomatic for 40 months (Figure 7).

DISCUSSION

Lipomas are mesenchymal neoplasms that are uncommon in the oral cavity. Usually, oral lipomas manifest as asymptomatic, slow-growing, and submucosal nodules.\textsuperscript{7} They occur mainly in the buccal mucosa, followed by tongue, floor of the mouth, and lips.\textsuperscript{3} However, considering the tongue neoplasms, lipomas account for only 0.3% of them.\textsuperscript{8} A recent review about tongue lipomas showed that most of the cases had less than 2.0 cm of diameter (average of 2.1 cm), and the largest tumor had 6.0 x 6.0 x 5.0 cm. Furthermore, the lateral region of the tongue was the main site affected.\textsuperscript{9} In general, it has soft to rubbery consistency and floats.\textsuperscript{5} However, an atypical form of lipoma called infiltrative lipoma can invade muscle tissue and recur after excision.\textsuperscript{10} A Brazilian study evaluating 41 oral lipomas showed a predominance of women (ratio 2.4:1) and a peak incidence in the sixth and seventh decades.\textsuperscript{11} However, another study performed in the Brazilian population\textsuperscript{12} did not find gender predilection. Recently, it was proposed that diabetes is associated with the incidence of oral lipoma, as well as trauma, chronic stimulation and heredity.\textsuperscript{2} Disruption of adipocyte maturation process can be caused by mutations in mitochondrial DNA, and diabetic patients are exposed to such mutations.\textsuperscript{13} Our patient reported to have controlled diabetes.

Although microscopical lipoma can be classified into several subtypes, the histopathological aspect of the lesion is characteristic. A classic lipoma usually has a circumscribed and non-encapsulated aggregate of mature adipocytes, with an abundant and clear cytoplasm and absence of cellular atypia and metaplasia.\textsuperscript{14} This description is consistent with the histopathological findings of our study.
The treatment of choice is surgical resection, since the tumor is easily excised and usually do not recur. However, for infiltrative lipomas, the recommendation is the removal with healthy tissue margin to prevent recurrence. The delay in the treatment of major tongue lipomas can lead to difficulty in speech, breathing, and swallowing, as well as atrophy of the lingual muscles and dental alterations. The treatment in this case consisted of surgical excision and the patient is asymptomatic after 40 months.

CONCLUSION

This report describes an unusual presentation of lipoma due to its clinical dimension and location. Therefore, it is important to include lipoma in the differential diagnosis of extensive lesions involving the tongue.
**Figure 3** | Specimen measuring 3.7 cm x 2.4 cm x 1.8 cm.

**Figure 4** | Specimen floating in formalin solution.

**Figure 5** | Mesenchymal neoplasm fragment exhibiting large number of mature fat cells, some congested blood vessels of small caliber, and some muscle fiber bundles.
Figure 6 | Mature fat cells, arranged in a lobular arrangement, interspersed with bands of connective tissue.

Figure 7 | Complete healing and no signs of recurrence. Patient is asymptomatic after 40 months of follow-up.
REFERENCES