

Multiple infiltrating lipomas of the tongue

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Abstract

A rare case of multiple infiltrating lipomas in the tongue of a 54-year-old man is reported. There have been only five previously reported cases of infiltrating lipoma of the tongue. They were all solitary in nature. The present lesion is the first case reported in the English literature of multiple infiltrating lipoma of the tongue. Because of its infiltrating nature, this tumour may be mistaken for a liposarcoma. Achievement of adequate surgical margins is essential, as the recurrence rate may be as high as 62.5 per cent without complete excision.

Key words: Lipoma; Tongue

Introduction

Lipomas are the most common benign, soft tissue mesenchymal tumours encountered. These tumours are seen usually in the back, shoulder, neck or extremities. Their occurrence in the oral cavity has been reported infrequently, accounting for only 0.3–5 per cent of all benign tumours in this location.^{1,2} Published work concerning oral lipomas has shown variable distribution of these tumours, but approximately half were related to the buccal mucosa. Less frequent locations include the tongue, floor of mouth and retromolar regions.¹ Infiltrating lipoma is usually found in the muscles of the extremities, but it is extremely rare in the oral cavity. Only five cases of infiltrating lipoma of the tongue have been reported in the English literature.³ They were all solitary in nature. So far, to the knowledge of the authors, this is the first documented case with multiple infiltrating lipomas of the tongue.

Case report

A 54-year-old male presented to our clinic with painless multiple masses in his tongue, which had developed over three years. The patient had no dysarthria and no difficulty in chewing or swallowing. He was otherwise healthy. Examination revealed non-tender, well-defined, rubbery masses protruding from the right and left lateral border of the tongue (Figure 1). The diameter of the largest mass measured 1 × 1 cm. The overlying mucosa was intact with a yellowish tinge. Excision of the tumours was performed under local anaesthesia, with a thin rim of soft tissue. Following surgical excision the specimens were fixed in 10 per cent buffered formalin and processed for routine histopathological examination. The largest gross specimen revealed a round mass measuring approximately 1 × 1 × 1 cm. On sectioning, the irregular and lobular round masses were white to yellow and semi-firm to rubbery in consistency. Histopathological examination of the resected tumours, covered by intact surface mucosa, showed it to be composed of mature adipose cells surrounding and separating irregular bundles of skeletal muscle. Some of the entrapped muscle fibres exhibited

varying degrees of atrophy. There was no cellular atypia and no mitoses were found. An occasional capillary was present within the tumour but, overall, the tumour was poorly vascularized (Figures 2 and 3). The patient has been followed-up for 13 months after surgery and there has been no recurrence.

Discussion

Lipomas are benign neoplasms or idiopathic proliferations of adipocytes and have been subdivided into simple lipoma, fibrolipoma, pleomorphic lipoma, myxoid lipoma, angioliipoma, angiomyoliipoma, myeloliipoma, lipoblastomatosis, hibernoma, atypical lipoma and infiltrating lipoma.⁴ Among these variants, angioliipoma and infiltrating lipoma are rarely found in the oral cavity.⁵ Infiltrating lipomas most commonly arise in the skeletal muscles of both upper and lower extremities. The consensus is that there is no clear sex predilection,⁶ although both male⁷ and female⁴ predominance have been claimed. Infiltrating lipoma occurs in all age-groups but is more frequently seen after the age of 40 years.³

Grossly, lipomas are smooth, well-circumscribed and round-to-oval encapsulated masses. The infiltrating form is usually well demarcated, but has no capsule and infiltrates into the adjacent muscle.⁸ The differential diagnosis of infiltrating lipoma is made by careful exclusion of malignant liposarcoma and types of benign lipomatous tumours, such as benign lipoblastomatosis, hibernoma, intramuscular myxoma or infiltrating angioliipoma. Liposarcoma is especially important to consider in the differential diagnosis, because well-differentiated liposarcomas often contain many areas of lipomatous tissue.⁹ The ability of infiltrating lipoma to infiltrate adjacent muscles and recur locally may lead to a false clinical diagnosis such as liposarcoma. Liposarcoma is characterized by areas of lipoblastic proliferation, myxoid differentiation, cellular pleomorphism, increased vascularity, and mitosis, features that are not present in the infiltrating lipoma.¹⁰ Our case had no areas of lipoblastic proliferation, cellular atypia or mitosis suggesting liposarcoma.

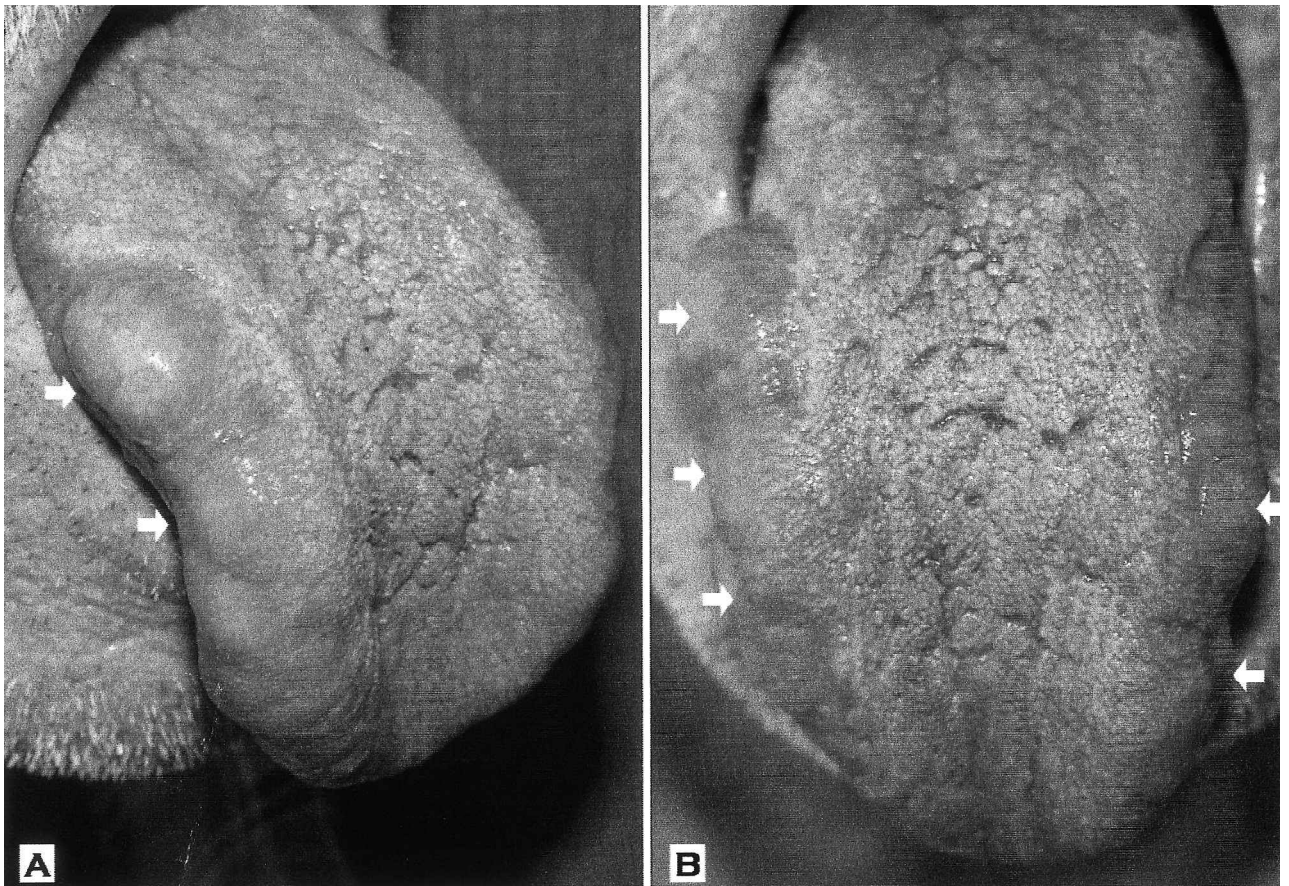


FIG. 1 (a) (b)

Multiple lipomatous masses in the right and left edges of the tongue (white arrows).

Like other lipomatous tumours, the treatment of this tumour is exclusively surgical and the clinical behaviour is best predicted by the completeness of surgical resection, as attested by surgical margins histologically free of tumour. The recurrence rate for infiltrating lipomas has been reported to be three to 62.5 per cent.^{6,10,11} The length of time between initial excision and recurrence has been found to be between six months and 20 years.^{6,7} Because of the infiltrating nature and potentially high rate of

recurrence following inadequate surgery, complete surgical excision is mandatory. However, no malignant transformation has been reported for recurrent infiltrating lipomas.^{6,11}

Conclusion

Infiltrating lipoma is a rare pathology in the oral cavity and five cases have been published in the English literature. They were all solitary in nature. This is, to our knowledge, the first case of multiple infiltrating lipomas of the tongue to be reported.

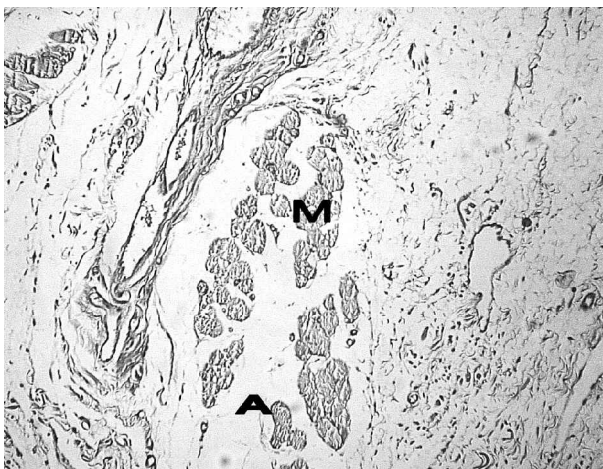


FIG. 2

Low-power microscopic view of the lesion. Infiltration of adipose neoplasm (A) between muscle fibres (M) (H & E; $\times 100$).



FIG. 3

High-power microscopic view of adipocytes between muscle fibres (M). Arrow: An adipocyte nucleus (H & E; $\times 400$).

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