

# Lingual Fibrolipoma – A rare clinicopathological entity

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**Summary:** Lipoma is a relatively common benign tumour occurring at sites of the body which are rich in adipose tissue. Due to sparsity of adipose tissue within the oral cavity, lipoma rarely presents in this region. Fibrolipoma of the tongue is a rare lesion. There are only 14 cases reported in the literature.

An 85-year-old patient presented with a painless mass on the tongue interfering with eating. There were no risk factors for malignancy and no family history of malignant diseases. Although intraoperatively the lesion was locally infiltrative, histopathology revealed a rare benign fibrolipoma.

Mainstay of treatment is surgical excision, but the lesion may pose a dilemma for Surgeons as difficulties associated with removal, due to the fibrous and adherent nature of the growth to surrounding tissue, may be mistaken for a cancerous growth.

**Keywords:** Fibrolipoma, Lipoma, Tongue, Malignant, Fibrous,

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## Case presentation

An 85-year-old male presented to our hospital with a three-year history of a painless mass on the lateral aspect of the right side of the tongue. There was no history of repeated trauma to the tongue. There were no risk factors for malignancy on history and no other co-morbidities. Clinical examination revealed a healthy 85-year-old gentleman with no evidence of weight loss. Ear Nose and Throat examination was unremarkable. Oral cavity examination showed an approximately 3 x 3 cm sub-mucosal, regular, well-defined, non-tender, rubbery mass on the right side of the tongue, with no surface ulceration. No neck nodes were palpable. The sensation and mobility of the tongue was intact, with no apparent involvement of the floor of mouth.

A contrast Computed Tomography (CT scan) showed an oval-shaped, well-circumscribed and homogenous right tongue mass measuring 4.5 x 2.8 cm with no bony involvement and no enlarged lymph nodes. A fine needle aspirate (FNA) showed mainly blood and adipose tissue and was deemed inadequate for diagnostic evaluation.

Due to the frequency of malignancy in patients with tongue masses at our institution, excisional biopsy was planned under general anaesthesia via an intra-oral approach. Because

investigations carried out on the lesion, including Fine Needle Aspirate Cytology (FNA) and CT scan suggested a diagnosis of a lipoma, we expected a straight forward excision of the lesion. Intraoperatively the lesion was encapsulated, firmly adherent to the surrounding tissues but not infiltrative.

Macroscopic examination of the excised lesion revealed a well circumscribed, encapsulated portion of tissue, measuring 3.5 x 3.2 x 3.0 cm. On sectioning, the mass was soft and homogenous with a yellow cut surface.

Histologic evaluation of the mass confirmed representation of encapsulated, lobulated fibro-adipose tissue comprising of mature adipocytes which showed no variation in size. There were no hypercellular areas and no areas of fat necrosis present within the specimen. The histological features were therefore consistent with a benign fibro-lipoma. Outpatient follow-up was uneventful, with no recurrence.

## Discussion

Lipomas are the most common benign tumours occurring in anatomical sites with adipose tissue throughout the body. Approximately 13–20% of head and neck tumours comprise lipoma,<sup>4</sup> with 1–5% of lipomas presenting in the oral cavity.<sup>4-6</sup>

The buccal mucosa is the most common site for lipoma, with the tongue being the second commonest site.

Tongue lipomas, which may be single, multiple or part of a syndrome, most commonly occur on the lateral border of the tongue, and have a male predilection.<sup>2</sup> They may present as single or multiple lesions and may either be solitary or manifest as part of a syndrome such as Gardner Syndrome.

Fibrolipoma, a histologic variant of lipoma, is characterised by mature adipose tissue which is separated into lobules by fibrous strands. These tumours are surrounded by a fibrous connective tissue capsule, which gives rise to multiple fibrous bands which often adhere to surrounding tissue<sup>3</sup> making a clear distinction between benign and malignant lesions doubtful, as it was with our patient.

Macroscopically, these lesions may be oval and of variable size, appear yellow in colour due to a thin translucent membrane, and with a soft to semi-firm consistency, depending on the degree of the fibrous connective tissue component.<sup>4,6</sup>

The clinical course of lingual fibrolipoma is usually asymptomatic, with an average duration of 3.2 years prior to excision. Patients classically present with a painless, slow growing lesion and generally only seek medical attention for aesthetic or functional issues such as chewing, swallowing or phonation dysfunction.<sup>4</sup> The appearance and pseudo-infiltrative nature of fibrolipoma may induce doubt clinically as to whether the lesion is truly benign.<sup>3</sup> In addition, since one cannot with certainty clinically distinguish between fibrolipoma and malignant infiltrating lesions such as liposarcoma, histologic evaluation is essential.

Computed Tomography scan features of fibrolipoma include that of an oval homogenous mass with well-defined borders. Although cytological evaluation may be attempted, it rarely provides diagnostic value in such cases of fibrolipoma of the tongue.<sup>3</sup>

Surgical excision is the mainstay of treatment and recurrence of fibrolipoma is rare following total excision.<sup>4</sup> The main objective of presenting this case is to create awareness of this rare clinical entity which may at times mimic a malignant growth.

## Conclusion

Lipoma of the tongue is a rare clinicopathological entity and fibrolipoma specifically, is exceptionally rare, with as few as 14 reported cases worldwide.<sup>3</sup> The histological features of this subtype of lipoma render it significant as it may masquerade as a malignancy on clinical examination, and it is therefore important to be aware of such an entity.<sup>3</sup> Surgical excision is thus essential to histologically distinguish fibrolipoma from infiltrating malignant lesions, and is the mainstay of treatment.

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Figure 1: Picture showing a mucosal covered mass involving the right side of the patient's tongue



Figure 2-3: Axial Computerised Tomography scan of the base of skull to clavicle demonstrating an oval mass involving the right tongue. Features were in keeping with a lipoma.

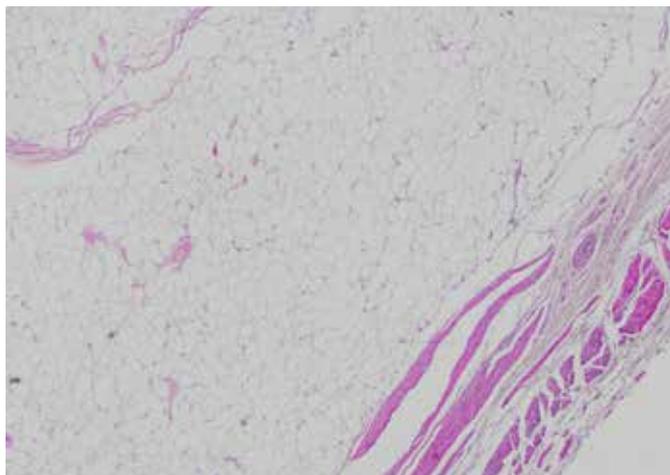


Figure 4 A

*Histological features – Haematoxylin and eosin stain demonstrating encapsulated, lobulated fibro-adipose tissue comprising of mature adipocytes which showed no variation in size*

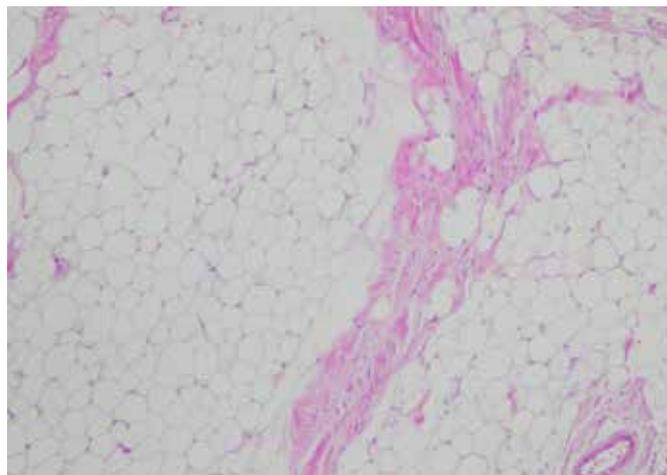


Figure 4 B

### Funding

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### Conflict of Interest

None declared

### Consent

Dr Mungul takes full responsibility for the integrity of the content of the manuscript. Assisted by Dr Masege.

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