



Case Report

Fibrolipoma of the tongue; a case report with literature review

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ARTICLE INFO

Keywords:

Fibrolipoma

Lingual

Tongue

Oral

ABSTRACT

Introduction: Fibrolipoma is a less frequent variant of lipoma, it is rarely reported in the oral cavity, especially in the tongue. This study aims to report a very rare case of tongue fibrolipoma.

Case report: A 53-year-old female presented with a painless mass at the anterior part of the tongue. It was soft with a smooth regular border. The patient underwent wide local excision to remove the lesion, and the sample was sent for histopathological examination which confirmed the diagnosis of a single fibrolipoma.

Discussion: Fibrolipoma is rare in the oral cavity, however, they have been seen in the buccal mucosa, lips, buccal vestibule, floor of the mouth, and retromolar area. It has been proposed that disturbance in glucose and lipid metabolism, hormone therapy, and trauma can lead to the formation and proliferation of the tumor.

Conclusion: Fibrolipoma of the tongue is a rare occurrence. Surgical excision is the ideal management strategy. Histopathological examination is the gold standard for definitive diagnosis.

1. Introduction

Lipoma is a benign soft-tissue tumor with a mesenchymal origin. It primarily consists of mature adipocytes, hence they can occur in any part of the body where fat is present. It is a common tumor that comprises 4–5% of all benign neoplasms in the body [1,2]. It has a solitary and slow growing nature, it occurs frequently in the upper trunk, abdomen, shoulders, followed by head and neck [3,4]. Based on the morphological features, multiple histological variants of the tumor exist, including conventional lipoma, fibrolipoma, angioliipoma, myeloliipoma, and spindle cell lipoma [5]. Fibrolipoma is considered a least frequent variant of lipoma in which adipose tissues are embedded within dense collagen fibers [6]. Fibrolipoma, even other variants of lipoma have rarely been reported in the oral cavity [1]. An even rarer phenomenon is the occurrence of fibrolipoma in the tongue with only a few cases have been reported in the English literature [7].

This study aims to report a very rare case of tongue fibrolipoma, with a brief review of the literature. The report has been written in line with SCARE 2020 guidelines [8].

2. Case presentation

Patient information: A 53-year-old female presented with a painless mass at the anterior part of the tongue. The mass has been present since birth and it has grown gradually over the last 2 years. She was a known case of diabetes mellitus and underwent thyroid surgery. She was on insulin (10 IUx2) and thyroxin medication (100 Mgx1).

Clinical findings: There was a mobile round mass (2 × 2 cm) located at the anterior part of the tongue, with smooth surface and regular outline.

Diagnostic approach: Laboratory diagnosis showed a very low level of thyroid stimulating hormone (TSH) (<0.005 uIU/ml), high level of free T3 (7.16 Pmol/L) with normal free T4.

Therapeutic intervention: The patient underwent wide local excision and the sample was sent for histopathological examination which confirmed the diagnosis of fibrolipoma (Fig. 1).

Follow-up and outcome: The patient was discharged in a good health on the first postoperative day. A 2-month follow up showed no sign of reoccurrence.

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<https://doi.org/10.1016/j.amsu.2021.102985>

Received 3 September 2021; Received in revised form 19 October 2021; Accepted 28 October 2021

Available online 30 October 2021

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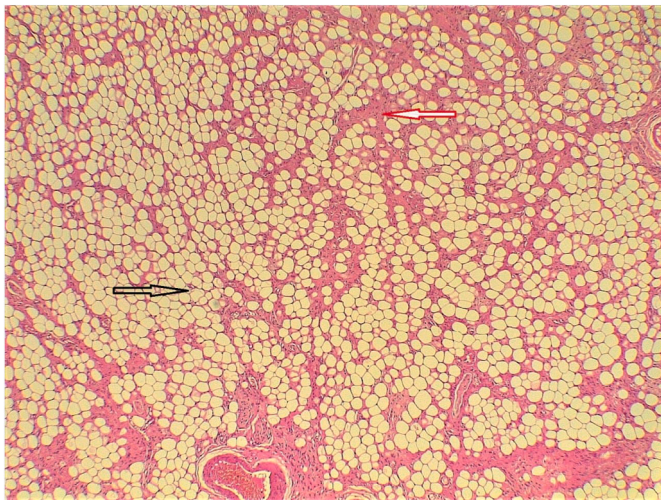


Fig. 1. Sections reveal well defined mass composed of mature adipocytes (black arrow) without marked variation in size and shape intermixed with thickened fibrous tissue and septa in between them (red arrow). (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

3. Discussion

Lipomas are relatively common and most frequently occur in the trunk and extremities. They make up 13–20% of all head and neck tumors [5,9]. Fibrolipoma as a rarer variant of lipoma has been infrequently reported in the oral cavity. When they do occur in this area, they can be observed in the buccal mucosa, lips, buccal vestibules, floor of the mouth, and retromolar areas [1]. Lipoma of the oral cavity was first described by Roux et al., in 1848, and later in 1858, Barling and colleagues reported the first case of tongue lipoma [10,11]. Throughout the literature, only 185 cases of tongue lipoma have been reported with only 16 cases of tongue fibrolipoma. This might be explained by the fact that the tongue lacks fat tissue [7,12].

The pathogenesis of fibrolipoma is not yet completely understood, however, it has been proposed that disturbance in glucose and lipid metabolism, hormone therapy, and trauma can lead to the formation and proliferation of the tumor [12]. Hence, association between these cases and diabetes has been reported [13]. The current case was a diabetic patient who also had a history of thyroid operation.

In general, lipoma most commonly occurs in the adult population after the age of 40 years with no gender predominance [14]. Meanwhile, some studies have reported higher male incidence [15]. However, a slight female predominance has been observed in the cases of fibrolipoma [16]. Oral fibrolipoma usually presents with a slow growing, painless, well-defined yellowish mass with soft consistency and painless superficial or submucosal mass which tends to be asymptomatic, hence they can commonly be found accidentally by dentists [1,14]. They may interfere with speaking, chewing, and swallowing [9]. In the current case, the mass did not interfere with speaking.

While imaging techniques and fine needle aspiration (FNA) can be used to determine the nature of the mass, they are not always required, as clinical examination can suspect the condition [12,14,17]. Imaging modalities were not required in this case. In order to confirm the diagnosis of the lipoma variant, histopathological examination is required as other methods can't provide definitive diagnosis [64]. Under the microscope, fibrolipoma is made of mature adipocytes within lobules of dense collagen fibers, it can easily be distinguished from conventional lipoma because of more represented fibrous connective tissues [6,12]. Similar findings were observed in the current case.

The standard management of fibrolipoma is surgical excision, and the reoccurrence of the tumor is extremely rare [15]. However, resection

can sometimes poses a challenge to the surgeon and be mistaken for carcinoma, as the tumor can attach to the surrounding tissue due to the fibrous nature of the neoplasm [7].

In conclusion, fibrolipoma of the tongue is a an extremely rare condition. Surgical excision is the ideal management approach with a very low reoccurrence rate. Although lipomas are easily diagnosed clinically, histopathological examination stays as the gold standard for the definitive diagnosis.

Patient consent

Consent has been taken from the patient and the family of the patient.

Provenance and peer review

Not commissioned externally peer reviewed.

Conflicts of interest

There is no conflict to be declared.

Sources of funding

No source to be stated.

Ethical approval

Approval is not necessary for case report in our locality.

Consent

Consent has been taken from the patient and the family of the patient.

Author contribution

Abdulwahid M. Salih: surgeon managing the case, follow up the patient, and final approval of the manuscript. Ari M. Abdullah: pathologist examining the specimen. Final approval of the manuscript. Marwan L. Fatah, Berwn A. Abdulla, Shvan M. Hussein, Fahmi H. kakamad: literature review, writing the manuscript, final approval of the manuscript.

Registration of research studies

According to the previous recommendation, registration is not required for case report.

Guarantor

Fahmi Hussein Kakamad is the Guarantor of submission.

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