Case Report

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Lipoma of the Tongue: A Case Report

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ABSTRACT

A lipoma is the most frequently occurring benign tumor of adipose tissue. Its prevalence in the head and neck region is approximately 15–20%, while in the oral cavity, it accounts for only 1–4% of all benign tumors. The occurrence of tongue lipomas represents just 0.3% of all tongue tumors. The buccal mucosa is the most common location for lipomas in the oral cavity, making tongue lipomas quite rare. In the oral cavity, these lesions typically present as slow-growing with a distinctive yellow hue and a soft texture. This condition mainly affects adults, and surgical removal is the preferred treatment method.

A 56-year-old man presented with a mass on the right lateral side of his tongue that he had had for the past 12 years. Over the last 2 years, he experienced challenges with speech and eating due to the tumor's gradual growth. Upon clinical evaluation, a yellowish superficial lesion was observed, measuring 5 cm at its largest diameter, protruding from the surface of the tongue. The tumor was surgically removed, leading to the restoration of normal tongue function, and histopathological analysis confirmed that it was a simple lipoma.

When a slow-growing, painless, and well-defined lesion appears on the tongue, one should consider lipomas despite their rarity. Surgical removal of a lipoma is recommended to provide symptom relief and to rule out the possibility of related malignancy.

Introduction

A lipoma is a non-cancerous tumor made up of mature fat cells, typically found in soft tissue such as the back, neck, chest wall, and face. Nevertheless, lipomas are uncommon in the oral cavity, especially on the tongue, with oral lipomas accounting for only 1–4% of all benign oral lesions [1].

Certain studies indicate a preference for males, whereas other research reveals no differences between genders [2–4]. The tumors can be encapsulated, nonencapsulated, or appear in an infiltrative fashion. Oral lipoma typically appears as a single lesion. The hue is frequently yellow on the tongue, depending on the thickness of the covering mucosa. They are typically noted as slow-growing, non-painful, and asymptomatic tumors. It is recognized that, as they continue to grow, their size could hinder speech and chewing [3,4].

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Histologically, lipomas are categorized as simple lipomas or their variants, which include fibrolipoma, spindle cell lipoma, intramuscular or infiltrating lipoma, angiolipoma, salivary gland lipoma (sialolipoma), pleomorphic lipoma, myxoid lipoma, and atypical lipomas [5]. Among these, the most common are simple lipomas and fibrolipomas. The fibrolipoma is marked by a prominent fibrous element combined with clusters of adipocytes. The angiolipoma is made up of a combination of mature fat and many tiny blood vessels. Myxoid lipoma has a mucous-like background and could be mistaken for myxoid liposarcomas. Spindle cell lipomas show differing quantities of uniformly appearing spindle cells along with fatty tissue. Pleomorphic lipomas are identified by the existence of spindle cells and unusual hyperchromatic giant cells. Intramuscular lipomas are typically located deeper and exhibit an infiltrative pattern, spreading between bundles of skeletal muscle [6]. Total surgical removal is the primary approach to alleviate symptoms and also eliminate the possibility of cancer.

Case Presentation

A 56-year-old male patient was sent to the ear, nose, and throat clinic due to a primary concern of a mass located on the right lateral side of the tongue for the past 12 years (Figure 1A and B). It had slowly expanded to its current size, and the growth had been substantial over the last two years. The lesion was without discomfort. Family history did not contribute. During the clinical evaluation, the lymph node was not felt externally. Intraoral examination showed a non-tender, well-defined, yellowish mass extending from the right side of the tongue. The lesion presented as a single, raised, stalked, and soft structure. Its dimensions were roughly 50 mm × 30 mm × 20 mm.

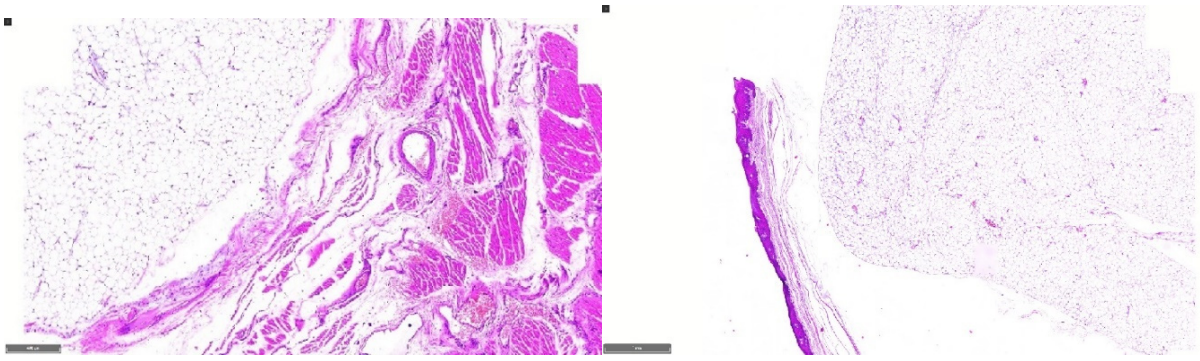
Based on the clinical evaluation, a preliminary diagnosis of a benign soft tissue tumor was established. The patient was recommended to undergo surgical removal of the lesion. A routine hematological analysis was conducted before the surgery, and all results fell within normal ranges. The lesion was excised under general anesthesia following appropriate surgical procedures. The patient was released one day post-surgery. He is maintained under observation. The injury had healed roughly two weeks post-surgery. Figure 2 illustrates the tongue 6 months post-surgery.

Histopathology revealed tongue tissue sections featuring a non-dysplastic squamous epithelial layer alongside regions of adipose tissue made up

(A) (B)

Fig. 1. Yellowish protruding tumor on right lateral oral tongue A: Anterior view/ B: Lateral view.

Fig. 2. Tongue 6 months after resection of tumor.



(A) (B)

Fig. 3. Microscopic view of the tongue simple lipoma. Hematoxicillin eosinophilin staining (A&B).

of proliferating mature lipocytes that lacked atypia, mitosis, or necrosis, limited to the thin fibrous tissue and musculature of the tongue (Figure 3A and B).

Discussion

Lipomas are frequent tumors in the human body, but their appearance in the oral cavity is exceptional, being no more than 4% of the tumors in this region in different studies. 1–3,15 Lipomas have different subtypes, such as angiolipoma, intramuscular lipoma, benign lipoblastoma, spindle cell lipoma, and pleomorphic lipoma, but 80% of them are simple lipomas [1–3,7].

Simple lipomas can occur in individuals of all ages, but they are more commonly observed in those over 40 years old. Generally, there are no significant gender differences; however, a minor preference for females has been observed with fibrolipomas, while simple lipomas show a slight preference for males. This discovery contrasts with overall data indicating that lipomas occur twice as frequently in females compared to males [7].

The origin of lipomas is still unknown, but factors such as trauma, chromosomal irregularities, genetics, prolonged irritation, hormonal imbalances, and metabolic disorders are among the contributors to the development of this tumor [3].

Several head and neck lipomas are strongly linked to various systemic disorders like neurofibromatosis, Gardner syndrome, familial multiple lipomatosis, and Proteus syndrome. These tumors are typically asymptomatic and grow slowly, which is why they are often diagnosed by chance. A clinical examination can suspect superficial lipoma with high accuracy. The deeper lipomas are evaluated through imaging techniques like magnetic resonance imaging or computed tomography scan. Oral lipomas are primarily categorized based on their histological variants. Histologically, lipoma adipocytes can be differentiated from normal adipose tissue. The lipoma's metabolism is distinct from that of regular adipose tissue [7].

The management of lipomas involves straightforward surgical removal, regardless of the histological type, and no recurrence is anticipated. Recurrence is observed only in infiltrating lipoma. The surgical method relies on the tumor's location and the anticipated aesthetic outcome [8].

In this research, the subject was a 56-year-old man with a gradually enlarging mass that had existed for 12 years, measuring 50 mm × 30 mm × 20 mm in size. The extraction was without pain, but he struggled with speaking and eating. Excision was performed, and the tongue's normal functions returned. Recurrence has not happened up to this point (6 months post-surgery).

Throughout the years, various authors have documented instances of tongue lipoma through case reports, case series, and literature reviews, some of which are listed below:

Mohammad Ali Damghani et al. reported a female patient with a huge submucosal tongue lipoma who underwent complete excision. The difference between this case and our patient was that the tongue mass in our patient was exophytic [9].

Hemant A. Baonerkar and colleagues published a case report and a review of the literature in 2015, in which a 63-year-old male patient with a small left lateral tongue mass underwent complete surgical resection, and lipoma was the pathological diagnosis. The strength of this article is the report of 64 patients with a pathological diagnosis of tongue lipoma since 1909, all of whom underwent excision. The demographic characteristics of the patients, tumor size, and subtypes of pathological lipoma are presented. It is stated that

in the differential diagnosis of slowly growing tongue masses without prominent symptoms, lipoma should be considered despite its rarity, and the treatment of choice is complete resection [10].

Conclusion

Tongue lipomas are usually asymptomatic and rarely lead to significant symptoms such as challenges with articulation and speech for the patient. Surgical removal of a lipoma is recommended for alleviating symptoms and ruling out possible malignancy.

Ethical Considerations

Compliance with ethical guidelines

There were no ethical considerations to be considered in this article.

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Conflict of Interests

The authors have no conflict of interest to declare.

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