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An Unusual Sublingual Intraoral Lipoma: A Case Report

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ABSTRACT

Lipoma is a common tumor of soft tissue with rare occurrence in the oral cavity, accounting for only 1-4% of benign oral tumors. It may be noticed only during routine dental examinations. Most of them rarely cause pain, resulting in a delay in seeking treatment. Lipoma of the oral cavity may occur in any region. The buccal mucosa, tongue, and floor of the mouth are among the common locations. A case of large intraoral lipoma occurring in the sublingual region in a 59-year-old male patient is reported. It was treated surgically under general anesthesia.

Keywords: Lipoma; Pathology; Oral; Surgery.

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Introduction

Lipomas are common, benign, slow-growing, soft tissue neoplasms of mature adipocytes; however, they are relatively uncommon in the oral region. The incidence of oral lipoma (OL) is thought to be 1% to 4% of all benign oral lesions. Oral lipomas have been reported to occur in a variety of locations, including the salivary glands, buccal mucosa, gingiva, lip, tongue, and floor of the mouth. OL is yellowish and soft to palpation, covered by normal mucosa. Histologically, OL can be simple lipoma, fibrolipoma, spindle cell lipomas, intramuscular or infiltrating lipomas, angiolipomas, salivary gland lipomas, pleomorphic lipomas, myxoid lipomas, and atypical lipomas [1,2]. This article aims to present a case of an adult male patient with an intraoral lipoma that was treated by surgical excision with no complications.

Case Presentation

Patient information

a 59-year-old male patient was referred to the Department of Oral Surgery with the complaint of swelling in relation to the lower left sublingual region for the past 2 years. The patient also complained of his disability to wear her complete dentures and feeling. His medical history shows no remarkable issues and no allergy to any medications.

Clinical Findings

Extraoral examination revealed no abnormalities. Intraoral examination showed a firm, solid swelling with no pain detected during palpation. The surface of the swelling exhibited healthy mucosa without any lesions. The patient reports no complaints regarding saliva secretion. This suggests that the salivary glands are functioning normally. An interventional radiologist performed a needle biopsy, and the pathology results indicated a fragment of fibromuscular tissue with the presence of focal benign seromucous glands, showing no significant pathological changes.

Surgical intervention

excisional biopsy was performed under total anesthesia. Blunt dissection was performed, exposing an irregular, poorly encapsulated, and lobulated yellow mass. The mass was transferred to 10% buffered formalin and was sent for histopathological examination outcome of interventions: the microscopic sections of the specimen stained with H&E showed a lobular arrangement composed of abundant mature adipocytes. The lobules are separated by fibrous connective tissue septa. The adipocytes were large, round to ovoid cells with clear cytoplasm and eccentric nuclei compressed against the cytoplasmic membrane. At the borders, the lesion was surrounded by a thin fibrous capsule. According to histopathologic features, a definitive diagnosis of lipoma was made.

Discussion

Lipomas are the most prevalent type of benign adipocytic tumors, constituting at least 30% of all benign soft tissue tumors. These noncancerous tumors arise from mesenchymal connective tissue and are primarily composed of mature adipocytes. Characteristically, lipomas are painless and exhibit slow, circumscribed growth within soft tissues. Although they are common benign tumors, their occurrence in the oral cavity is rare [3,4]. Sex preference is a topic of discussion, and some studies support the contention that lipomas are generally more common in males than in females. Tumors occur in adult patients most often between the ages of 40 and 60 years and are uncommon in children [5]. Histologically, they can be classified as simple lipomas or their variants, such as fibrolipomas, spindle cell lipomas, intramuscular or infiltrating lipomas, angiolipomas, salivary gland lipomas, pleomorphic lipomas, myxoid lipomas, and atypical lipomas. The features of each group is summarized in Table 1 [1]. Most lipomas are asymptomatic and can be diagnosed through a clinical examination. The differential diagnoses can be: epidermoid cysts, hematomas, panniculitis, and other forms of adipocytic tumors (Table 2) [6]. The risk factors of oral lipoma are unclear. Some studies have acknowledged that mechanical factors, the endocrine system, inflammation, obesity, chromosomal abnormalities, radiation, trauma, mucosal infections, and chronic irritation can contribute to the development of oral lipoma [7].

Several techniques are available for treating lipomas in various parts of the body. A very non-invasive one includes steroid injections and liposuction. Injections are best performed on lipomas less than 1 inch in diameter. It involves injecting lidocaine (Xylocaine) and triamcinolone acetonide (Kenalog). The concentration of steroid and frequency of injection depend on the size of the lesion and response to treatment. Liposuction can be used to remove small or large lipomas, especially when it is necessary to avoid scarring. However, complete elimination of the growth is hard to achieve with this technique. Surgical techniques consist of enucleation and excision. Enucleation is appropriate

for small lipomas; a 3-mm to 4-mm incision is made over the lipoma. A curette is placed inside the wound and used to free the lipoma from surrounding tissue. Once freed, the tumor is enucleated through the incision using a curette. In this technique, suturing is not needed; simply applying pressure dressing is enough. Excision involves using a scalpel; it's possible to use hemostats or Allis clamps to retract tissue during removal. The surrounding tissue in the hole can be palpated to ensure complete removal. Care must be taken not to damage nerves or blood vessels that may lie just beneath the tumor [8]. Recurrence is rare, but an aggressive excision might perforate the encapsulating membrane, creating a spill of cells that could lead to recurrence. It is important to approach the lesion with a firm but non-aggressive incision and free the lesion from the surrounding tissues. Due to its benign nature, the lesion does not generally need any further radiotherapy or chemotherapy [6].

Table 1. The features of each group of lipomas.

Histological classification	*features*
simple lipomas	*more frequent in males* *well circumscribed and thinly encapsulated*
Fibrolipomas	*more frequent in females* *well circumscribed and thinly encapsulated* *the mature adipose tissue was interspersed by broad bands or fascicles of dense connective tissue without presence of capsule.*
Intramuscular lipomas	*more frequent in adult males* *slight predilection for the tongue* *could suggest a false* *diagnosis of liposarcoma*
Minor Salivary gland lipomas	*displaying adipose tissue closely packed with glandular components, surrounded by a thin layer of fibrous tissue and surface stratified squamous* *epithelium*
Spindle cell lipomas	*fibrous and myxoid tissue containing spindle cells and scattered adipocytes*

Table 2. The differential diagnoses of lipoma.

Differential Diagnosis of Lipoma
Epidermoid cyst
Subcutaneous tumors
Nodular fasciitis
Liposarcoma
Metastatic disease
Erythema nodosum
Nodular subcutaneous fat necrosis
Vasculitic nodules
Rheumatic nodules
Sarcoidosis
Infections
Hematoma

Figure 1. Aspirating the lesion to ensure there is no vascular entrapment in the surgical field.

Figures 2 & 3. Surgical removal of lipoma: incision making, retracting tissue and removing the lesion.

Figures 4. Comparing the size of the lesion with a No. 15 Scalpel.

Conclusion

Intraoral lipomas are a rare entity that may be noticed only during routine dental examinations. The diagnosis of oral lipomas is usually clinical and surgical, but histopathology remains the gold standard.

Conflict of Interest

There is no conflict of interest to declare.

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