

Lipoma in the Soft Tissues of the Floor of the Mouth: A Case Report

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Abstract: Lipomas are common benign soft tissue neoplasms of mature adipose tissue. Most of lipomas develop in the subcutaneous tissues but deeper tissues may be involved as well; the oral cavity is not commonly affected. The overall incidence in the oral cavity is thought to be between 1% and 4.4% of all benign oral lesions. Oral lipomas can occur in various anatomic sites including the major salivary glands, buccal mucosa, lip, tongue, palate, vestibule, and floor of mouth. Although benign in nature, their progressive growth may cause interference with speech and mastication due to tumour's dimension. The present report shows the case of a 58-year old female who presented with a large intraoral lipoma.

INTRODUCTION

Lipomas are common benign soft tissue neoplasms of mature adipose tissue. The peak of incidence is usually in the fifth or sixth decade of life, while occurrence in children is very uncommon; multiple presentation may occur in about 5% of patients [1]. The tumors are either encapsulated or not. In a review of more than 1000 benign tumors of adipose tissue, over 80% were ordinary lipomas; nearly all the others were angiolipomas, intramuscular lipomas, or lipoblastomas; other types accounted for less than 2% of all benign lipomatous neoplasms [2].

Most of lipomas develop in the subcutaneous tissues but deeper tissues may be involved as well; the oral cavity is not commonly affected [3]. The overall incidence in the oral cavity is thought to be between 1% and 4.4% of all benign oral lesions [4, 5]. Oral lipomas can occur in various anatomic sites including the major salivary glands, buccal mucosa, lip, tongue, palate, vestibule, and floor of mouth [6, 7]. Some studies showed a female preponderance while others did not found gender preference [4, 8]. Although benign in nature, their continue growth may cause interference with speech and mastication due to tumour's dimension [9].

The present report shows the case of a 58-year old female who presented with a large intraoral lipoma.

CASE REPORT

A 58-year-old otherwise healthy woman was admitted to our clinic with a painless palpable intraoral mass, which had been present for 3 years. The clinical examination revealed a mobile 20 mm in size mass located in the floor of the mouth (Fig. 1A). The overlying mucosa was normal in appearance with no sign of inflammation. Nothing was visible

extra-orally. On palpation, the lesion was non-tender (Fig. 1B), but no fluid could be detected by needle aspiration (Fig. 1C). Magnetic resonance imaging revealed a mass in the floor of the mouth (Fig. 2). The histopathological analysis performed on an incisional biopsy collected sample showed lobules of mature adipose tissue consistent with a lipoma. The lesion was surgically excised under local anaesthesia. A longitudinal incision was made over the mucosa covering the tumor, blunt dissection was used throughout, and the lesion literally popped out from surrounding tissues (Fig. 1D, E). The 20 x 12 x 7 mm tumor, was yellowish in colour and well encapsulated (Fig. 1F). Mucosal layers were closed together with absorbable sutures (Monocryl® 5/0) obliterating the dead space.

Sections showed sheets of mature adipocytes and lobules of adipose tissue separated from the surface epithelium by fibrous connective tissue stroma. Tumor cells were arranged in lobules. These lobules were separated from each other by fibrovascular connective tissue septae. A histopathological diagnosis of lipoma was made.

DISCUSSION

Lipomas develop mostly in the subcutaneous tissues and only rarely in deep tissues. They most commonly involve the trunk and limbs of the body, and seldom the oral and maxillofacial region [3, 8]. The occurrence is higher in females than in males [1]. The female to male ratio for all lipomas is 2: 1 [10], but oral lipomas occur more in men than in women (1.5: 1) [10] or have no gender predilection [11]. Lipomas usually develop in patients over 40 years old; the buccal mucosa and vestibule are the most common involved intraoral sites (half of cases).

Superficial lipomas in oral and maxillofacial region sometimes can be clinically diagnosed. Palpation reveals a soft, painless, and mobile mass, which gradually enlarges over the course of several months or years. Usually, deep lipomas are not palpable. It is difficult to distinguish between

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Fig. (1). (A) clinical aspect of intraoral lipoma, (B) low consistence of the mass, (C) no liquid with needle aspiration biopsy, (D) incision during surgery phases, (E) enucleation of the mass, (F) macroscopic aspect of the mass.

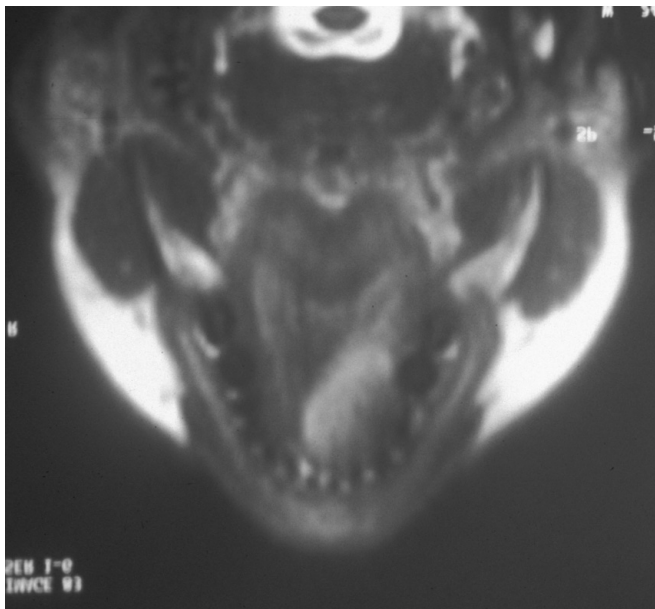


Fig. (2). Aspect of intraoral lipoma at the MRI.

the mass and the adjacent tissues, especially when the mass is adherent to muscles and salivary glands. Hence, the

imaging examination may be necessary. Fine needle aspiration biopsy (FNAB) sometimes is useful for a direct diagnosis [12, 13]. There are many imaging techniques that could be used to identify soft tissue masses, such as computerized tomography (CT), magnetic resonance imaging (MRI) and ultrasonography. Ultrasonography is quick, easy, less costly, and, with the use of high-frequency transducers, it is really suitable for evaluation of superficial structures, especially when difficulties exist in identifying the mass from adjacent tissues, as it happens in the oral and maxillofacial region. Ultrasonography shows a round or elliptical in shape lesion, with intact or mostly intact capsule. Most of lipomas are hypo-echoic with echogenic lines or spots [14, 15]. However, the soft tissue characterization with ultrasonography is less specific than CT or MRI. When the mass is difficult to identify on ultrasonogram, CT or MRI is necessary [1, 16, 17]. Lipoma has a characteristic radiographic appearance. On CT scan it shows a high density from 83 to 143 Hounsfield units with well or poorly defined margins depending on the capsule.

Despite the close histological similarity to normal adipose tissue, lipomas, usually, have chromosomal aberrations such as translocations involving 12q13-15, locus interstitial deletions of 13q, and rearrangements involving

8q11-13 locus [18]. The clinical differential diagnosis includes ranula, dermoid cyst, thyroglossal duct cyst, ectopic thyroid tissue, pleomorphic adenoma and mucoepidermoid carcinoma, angioliipoma, fibrolipoma and malignant lymphoma [15, 19, 20]. The definitive diagnosis is made by means of microscopic examination which shows adult fat tissue cells embedded in a stroma of connective tissue and surrounded by a fibrous capsule [20]. A histopathologic differential diagnosis appropriate to the oral cavity would include fibrosarcoma if spindle cells are not localized and numerous [21]. Other lesions should be also considered: they include schwannoma, myxoid neurofibroma, leiomyoma, nodular fasciitis, myxolipoma, fibrolipoma, malignant fibrous histiocytoma, myxoid liposarcoma, and myxoid solitary fibrous tumour.

The prognosis of this tumor is always good. In adults, the recurrence is rare after complete surgical resection; nonetheless, Cao *et al.* reported recurrence in patients under 18 years old, and development of liposarcoma after several recurrences. Long-term follow-up is necessary in patients under 18 years old [14]. Surgical resection is the main treatment for lipoma. The complete resection should be emphasized during the first surgical operation, which is the key factor in order to avoid recurrence [15, 22]. Well-encapsulated lipomas, as the present case, easily shell out with no possibility of recurrence or damage to the surrounding structures.

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