

## Lipoma of the Submandibular Region: An Unusual Presentation

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**Abstract:** Lipoma is the most common benign tumour and frequently occurs in the head and neck. Lipoma of the oral and maxillofacial region occurs most commonly in the parotid region, followed closely by buccal mucosa. Lipomas in the submandibular region are relatively rare. It is composed of adult fat cells that are subdivided into lobule by septae of fibrous connective tissue. Surgical excision is the treatment of choice with recurrence not expected. This case report presents a case of lipoma in Left Submandibular region in a 65 year old male. The clinical features, imaging study, histopathological features and management of the tumour, are described. [D Mehta, Natl J Integr Res Med, 2018; 9(2):99-101]

**Key Words:** Lipoma, Submandibular region, Histopathology

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**Introduction:** Lipomas are the most common soft-tissue tumor. These slow-growing, benign fatty tumors form soft, lobulated masses enclosed by a thin, fibrous capsule. Lipomas of the submandibular space are relatively uncommon. Prevalence is 1%. Conventionally, lipomas are divided into three types. Superficial lipomas (arise within subcutaneous tissue), deep lipoma (arise within deep soft tissue) and periosteal lipoma (arise within surfaces of the bone). A total of 13% of lipomas are found in head and neck. Lipoma can harbor elements other than adipose tissue-like blood vessels, muscle fibers, fibroconnective tissue and bone tissue. Although lipomas are generally diagnosed by clinical examination, imaging studies and histopathological examination can aid in establishing the diagnosis.

**Case Report:** A 65-year-old male patient presented with an extra-oral swelling of the left submandibular region since 5 years. The swelling was painless and gradually progressive. Clinical examination revealed a smooth-surfaced, soft and non-tender mass (5 × 3 cm) with well-defined margins in the left submandibular region. The swelling was mobile, not fixed to the skin and the underlying bone (Fig.1). Patient was systemically normal. Clinically, submandibular region swelling was suspected to be a lymph node or glandular enlargement as a differential diagnosis for the case.

Ultrasonography of the Left submandibular region showed a well-circumscribed elliptical mass, which was relatively hyperechoic to the adjacent muscle that was adjacent to the base of the mandible. Fine-needle aspiration cytology showed fragments of adipose tissue consisting of cells with large vacuoles of fat and small peripherally located nuclei. Fragments also

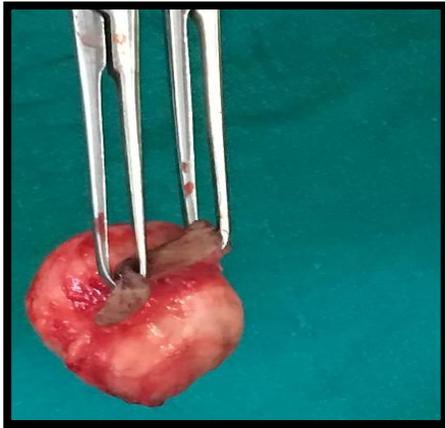
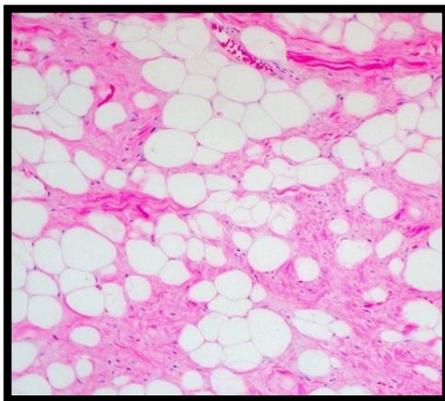
contained capillary vessels. It was negative for malignancy. Absence of Punctum ruled out Sebaceous Cyst as the diagnosis. Ultrasonography and histopathological examination aided us in establishing the diagnosis as Lipoma in the following case.

**Figure 1: Clinical picture showing a Swelling in the left submandibular region with well-defined margins**



Written and Informed Consent from the Patient and their relative for Anaesthesia and Surgery was obtained.

Surgical Excision of the lesion was planned under General Anaesthesia via Submandibular approach. (Fig.2). Excised mass showed a well-circumscribed lesion that was easily separated from the surrounding tissues (Fig.3). Rest of the gland was normal. Marginal mandibular nerve was well preserved. Histopathological examination of the specimen showed adipocytes in lobules, separated by fibroconnective tissue and muscle bundles (Fig.4). These features were suggestive of lipoma. Follow-up of 2 years was done following No recurrence.

**Figure 2: Elliptical Incision****Figure 3: Gross specimen being well encapsulated and separated from surrounding tissues.****Figure 4: Histopathological Slide showing Adipose Lobules**

**Discussion:** Lipomas are the most common soft tissue mesenchymal neoplasms with 15 to 20% of the cases involving the head and neck region and 1 to 5 affecting the oral cavity<sup>1</sup>

Lipomas are common benign mesenchymal tumors. They may develop in virtually all organs throughout the body. The anatomy depends on the tumor site. Subcutaneous lipomas are usually not fixed to the underlying fascia. The fibrous capsule must be removed to prevent recurrence.<sup>2</sup>

Lipomas in the submandibular region are relatively rare. Lipomas and its variants are common soft tissue tumors but are not commonly found in the oral and maxillofacial region. Lipoma of the oral and maxillofacial region occurs most commonly in the parotid region, followed closely by buccal mucosa. It is composed of adult fat cells that are subdivided into lobules by septae of fibrous connective tissue. Surgical excision is the treatment of choice with recurrence not expected.

There have been reports of deep intramuscular lipomas in the submandibular region by Adachi *et al.* Pusiol *et al.*, reported an oncocytic sialolipoma of submandibular gland<sup>4</sup>. Gultekin *et al.*, reported a case of parosteal lipoma. Furlong *et al.*, in their study reported that lipomas in the head and neck are common in the parotid region followed by buccal mucosa and lip.

When it comes to the diagnosis, sometimes clinical examination alone is not sufficient to identify the nature and exact location of the mass. In such a situation, imaging and histopathological examination can be useful. Ultrasound and magnetic resonance imaging can differentiate lipomas from other soft tissue tumors. In the case reported here, ultrasonography and histopathological examination were useful for the diagnosis. The prognosis of superficial lipoma is good and the risk of recurrence is low.<sup>5</sup>

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