

# Osteolipoma in the floor of the mouth: report of a case

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## Abstract

Lipoma is a benign soft tissue tumor of fat and consider as the most mesenchymal neoplasm which highly occurrence on the trunk and extremities. It's prevalence in oral and oropharyngeal region is relatively uncommon. Few oral cavity lesions occur before the third decades of life with a fairly balanced sex distribution. Lipoma histopathologically sub classified to fibrolipoma, angioliipoma, myxoliipoma myoliipoma and osteoliipoma according to presence of fibrotic connective tissue, highly vascular, myxoid changes, smooth muscle bundles and area of bone or cartilage metaplasia just close to mature fat cells.,Osteoliipoma is a rare variant of lipoma that had mature fat cells as main tissue with area of bony changes. In head and neck region osteoliipoma has been reported in CNS, neck, scalp and lat pharyngeal space., In review of English language articles there was eight reported case of osteoliipoma in oral cavity.,Our case is an osteoliipoma of the floor of mouth in 54 years old age woman with submental mass from 6 months ago and radiographic report suggests teratoma with some radiopaque nests.

**Key words:** Oral cavity, Tumor, Osteoliipoma

## Introduction

Lipoma is a benign soft tissue tumor of adipose tissue. Five percent of benign tumors and 50%-25% soft tissue tumors are lipoma (1). It's prevalence in oral cavity as a true mesenchymal neoplasm is low. Lipoma classified to fibrolipoma, angioliipoma, myxoliipoma myoliipoma and osteoliipoma. They have mature fat cells with these characteristics in order:

Fibrotic connective tissue, highly vascular, myxoid changes, smooth muscle bundles and area of bone or cartilage metaplasia (2). Osteoliipoma is a rare variant of lipoma that had mature fat cells as main tissue with area of Bony changes. In head and neck region osteoliipoma has been reported in CNS (hypothalamus, tuber cinevum, suprasellar

area), neck, scalp and lat pharyngeal space (3-8).

In review of English language articles there was eight reported case of osteoliipoma in oral cavity (9-11). Four lesions happened in females. Our case is an osteoliipoma of floor of the mouth in 54 years old age woman.

## Case Report

Patient was 54 years old age woman without any systemic problem. She had noticed submental mass 6 month ago. She was referred to the authors with an occlusal graph with diagnosis of salivary gland stone.

There was no submental mass in extraoral examination and in intraoral examination lesion had caused elevation of floor of mouth (Fig 1). Overlying mucosa was normal and similar to adjacent mucosa in color. It's consistency in palpation was soft. Milking of salivary gland's expressed normal saliva flow from ducts. She had no pain or limitation in mouth opening.

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In CT scan there was a lesion in medial of mandibular body without adherence to the bone. It contains two radiopaque nests in the lesion (Fig 2).

CT contrast of the lesion was similar to the fatty tissue.

Radiographic report suggests teratoma. Under local anesthesia with incision located lateral to the sublingual

ducts accessed to the lesion. Yellowish color of the lesion and superficial red blood vessels in capsule guide toward lipoma and another experience of the author with osteolipoma<sup>9</sup> suggest osteolipoma as a clinical diagnosis (Fig 3). It's adherence to surrounding tissue was loose except in sublingual gland region. We remove this salivary gland with lesion.

**Figure 1: Soft tissue mass with elevation of tongue in intraoral examination.**



Histologically, it consists of well circumscribed mass of mature fat cells with osseous trabeculation contain osteocytic lacunar spaces (Fig 4).

In post operative course patient developed lingual and sublingual hematoma that caused tongue elevation. Seven days after operation tongue was normal in color and size.

Follow up of the patient six months after surgery revealed no sign of recurrence.

### **Discussion**

Lipoma is the most common mesenchymal neoplasm. Some cases of herniated and epithelialized buccal fat pad in oral cavity have been reported as pseudolipoma (12). The lipoma of oral cavity is rare and osteolipoma variant in oral cavity is

Figure 2: Well defined radiolucency with focal radiodense body (arrow).



extremely rare. In English language articles, eight cases of oral osteolipoma have been reported. With our case there are five cases in buccal and vestibular regions, one in lateral border of tongue, one in congenital cleft Palate and two others in sublingual area (9-11).

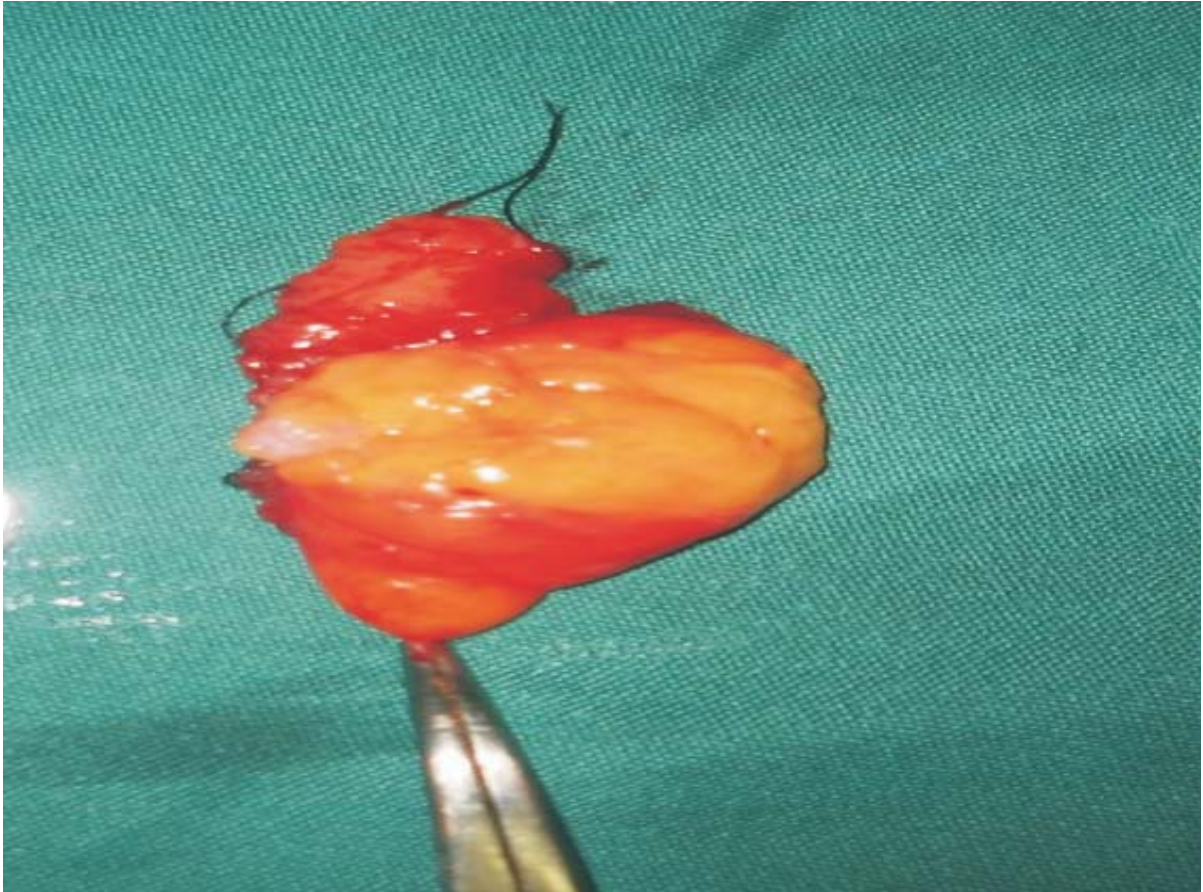
Dominant theory for presence of mature bone in lipoma is differentiation of undifferentiated mesenchymal cells to the

bone forming cells (osteoblasts). This change can be metaplastic or neoplastic (13).

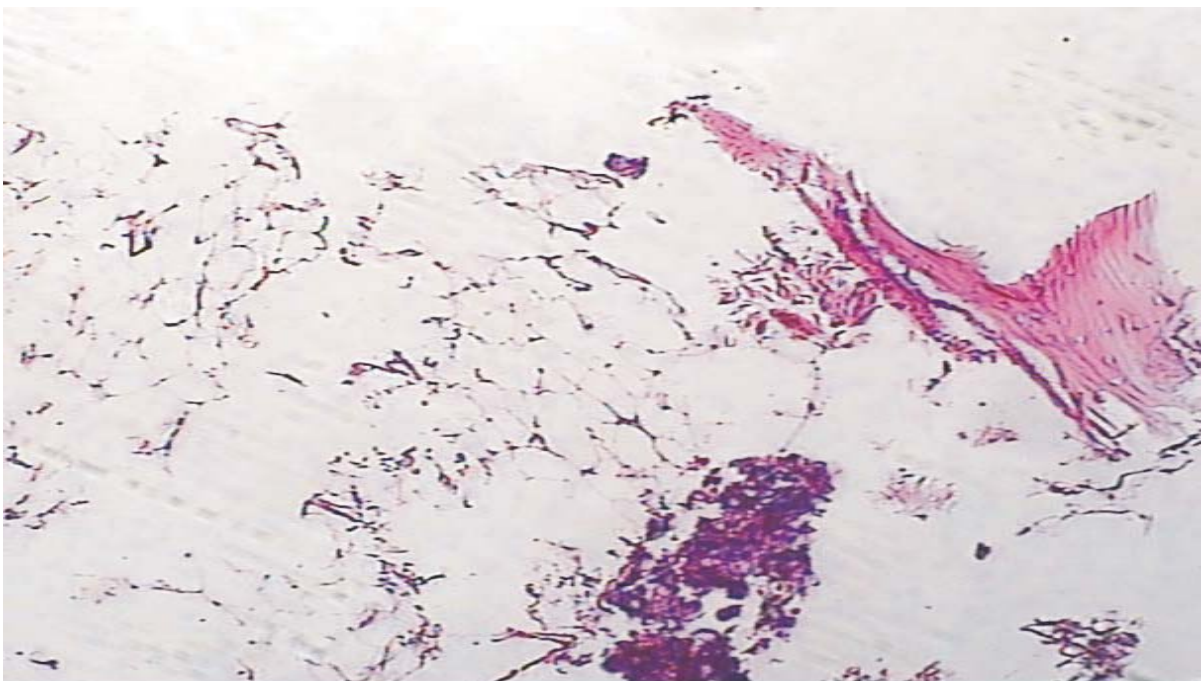
In previous reported sublingual osteolipoma by godbr in 1961 in a male patient there was adherence of the lesion to the genial tubercle periosteum (14). In our case there was no adherence to the bone.

Overlying covering mucosa was normal and this thin mucosa faded yellow color of lipoma.

**Figure 3: Excised gross of yellowish specimen with a pointed head of calcified mass at the peripheral left side.**



**Figure 4: Matured lacunar bone just close to the adipocytes and small fibrous connective tissue.**



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