



## AN UNUSAL CASE OF INTRAORAL LIPOMA: A CASE REPORT

## Maxillofacial Surgery

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## ABSTRACT

Lipomas are benign (non-cancerous) tumors which composed of fat cells. They are frequently seen in middle age group, slow growing, subcutaneous tumors. Lipomas usually appear as soft, painless, movable lumps. They can be found anywhere in the body where fat is present. Though, Lipomas and lipoma variants are common soft tissue tumors, but rarely found in the oral and maxillofacial region. In the present article we are reporting a case of lipoma at very uncommon site that is mandibular vestibule.

## KEYWORDS

Intraoral Lipoma, Mandibular Vestibule, Benign Soft Tissue Tumour

## INTRODUCTION

Lipomas are common benign soft tissue neoplasms. They are slow growing, freely mobile, fluctuating, encapsulated tumors of soft, adipose tissue. Clinically, they appear as a semilucid yellow color. Oral lipomas often show concentrations of capillary vessels in the overlying mucosa<sup>1</sup>. They are relatively uncommon in the oral and maxillofacial region. The overall incidence of lipomas seen in the oral cavity is between 1% and 4.4% of all benign oral lesions<sup>2,3,4</sup>.

Lipomas predominantly seen in males with average age 51.9 years, range 9-92 years.<sup>4</sup>

Developmental cysts, mucosal extravasation cysts and salivary gland lesions could be the differential diagnosis for the intraoral lipomas as they are similar according to the location, depth and appearance<sup>5,6</sup>.

Roux described soft tissue lipoma in 1848 as a yellowish epulis whereas Cornil and Ranvier presented the first case of intraosseous lipoma (IOL) in 1880<sup>1,7</sup>.

## Case Presentation

A 45years old female patient was reported to private dental clinic with complain of swelling in lower left back region of jaw since 6 months. Patient had no any other systemic medical history.

On clinical examination extra-orally, we found slow growing, soft, nodular swelling measuring 4 cm in diameter was present at the body of mandible. (fig. 1)



Fig.1



Fig.2

The swelling was non tender in nature. The Slip sign was positive. On intraoral examinations, the swelling was extending from lower left canine to lower left first molar. The lower left vestibule was obliterated due to swelling. The colour of overlying mucosa of the lesion was similar to the adjacent mucosa (fig 2).

Pre operative blood investigations done. Vestibular incision given extending from lower left lateral incisor to lower left second molar. Soft tissue dissection done to expose tumor.(Fig.3)



Fig.3

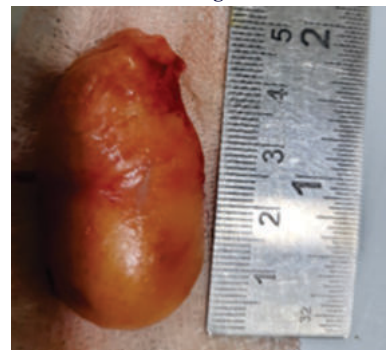


Fig.4

The excision of tumor was done under local anesthesia. The size of excised tumor was 4.8cm(Fig. 4) Wound closed with simple interrupted sutures using 3-0 vicryl. Post operative instructions were given. Post operative medicines were given. Follow up after 24 hours, 3 days, 8days advised.

The histopathologic reports showed hematoxylin and eosin (H&E) stained mature adipocyte tissue, showing lobules which surrounded by a fibroconnective tissue capsule. The final histopathologic report suggestive of oral lipoma.

## DISCUSSION

Lipomas are among the most frequently encountered mesenchymal neoplasms of soft tissue in the human body. They are benign tumors

primarily composed of mature adipose tissue. Despite their overall high prevalence, lipomas are relatively uncommon in the oral and maxillofacial region, accounting for only 1–4% of all benign oral tumors<sup>4,13</sup>. When present in this anatomical area, they may present a diagnostic challenge due to their rarity and their potential to mimic other soft tissue lesions both clinically and radiographically.

The World Health Organization (WHO) classifies benign lipomatous tumors into two broad categories: classic lipomas and lipoma variants. Classic lipomas consist entirely of mature adipocytes and typically follow a slow-growing, asymptomatic clinical course. On the other hand, lipoma variants exhibit additional histological components and can present more diverse clinical features. These variants include angiolipomas (containing vascular elements), chondroid lipomas (with cartilaginous differentiation), myolipomas (composed of smooth muscle cells), and spindle cell/pleomorphic lipomas, which may exhibit spindle-shaped cells or pleomorphic features. Other entities, such as hamartomatous lesions, diffuse lipomatous proliferations, and hibernomas (composed of brown fat), also fall under this spectrum<sup>14,15</sup>.

The etiology and pathogenesis of lipomas remain unclear, although several theories have been proposed. Obesity has traditionally been considered a contributing factor due to the tumor's adipocytic composition; however, lipomas often arise independently of body fat distribution<sup>16</sup>. Other proposed etiologic factors include trauma, which may trigger the proliferation of adipose tissue as part of a reparative process, and chronic inflammatory responses, which may stimulate mesenchymal cell differentiation<sup>17</sup>. Additionally, hormonal imbalances and genetic predispositions have been implicated, particularly in cases of multiple lipomatosis syndromes or familial lipomas<sup>18,19</sup>.

The diagnosis of lipoma not rely solely on clinical examination, especially for deep-seated or unusually large lesions. Imaging studies like ultrasound, computed tomography (CT), Magnetic resonance imaging (MRI) play a crucial role in the evaluation and surgical planning of such cases<sup>9,12</sup>.

The management of intraoral lipomas is primarily surgical excision. The main goal of treatment is complete surgical removal of the lesion, including its capsule, to prevent recurrence. Intraoral lipomas are typically well-circumscribed and encapsulated, which facilitates enucleation and minimizes damage to adjacent structures<sup>2,20</sup>.

Histopathological examination of the excised mass is mandatory to confirm the diagnosis and rule out malignant transformation, such as well-differentiated liposarcoma, although the latter is extremely rare in the oral cavity<sup>21,22</sup>.

Recurrence of intraoral lipomas is uncommon, especially when complete excision is achieved. However, infiltrating (intramuscular) lipomas pose a higher risk of recurrence due to their poorly defined margins and potential involvement of muscle fibers, which can make complete removal difficult.

#### Alternative or Adjunctive Modalities:

Although surgical excision remains the gold standard, alternative approaches have been explored in select cases, including:

- Steroid injections: Rarely used in oral cases, these may lead to size reduction in smaller lipomas through fat atrophy<sup>23</sup>.
- Liposuction: Occasionally considered for large, superficial lipomas, though it is not favored in the oral region due to lack of control and potential for incomplete removal<sup>24</sup>.
- Laser excision (e.g., CO<sub>2</sub> laser): Offers a bloodless field and minimal post-op edema but is best suited for small, superficial lesions<sup>25</sup>.

Despite these emerging options, none has demonstrated superior outcomes to conventional surgical excision for intraoral lipomas.

#### CONCLUSION

Though benign, lipomas in the oral and maxillofacial region require thorough evaluation due to their potential to mimic other pathologies and their occasional presentation in less accessible or aesthetically sensitive regions. Histopathological examination remains the definitive diagnostic tool, but imaging studies significantly aid in preoperative assessment, especially for atypical or larger lesions. Awareness of the various lipoma subtypes and their clinical

implications ensures accurate diagnosis and effective treatment, minimizing the risk of recurrence and complications.

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