

# A Rare Clinical Unusually Large Sublingual Lipoma in Children: A Case Report

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**Abstract:** ***Introduction:** Oral lipoma is a benign soft tissue tumor of mesenchymal origin, slow growing, found in the buccal mucosa, tongue, floor of the mouth, palate, gingiva, lips, and retromolar area. Lipoma is the most common mesenchymal neoplasm in the maxillofacial region, but is rare in pediatric populations. **Case Report:** A 3-year-old girl was referred to an oral surgery with the chief complaint of swelling in the lower tongue, causing her to have difficulty eating and frequent salivation. The lesion appeared almost 2 years before, and was ignored then resulting in a swallow inability due to an egg-sized lump and a speech impediment. Extraoral and intraoral examination revealed a pedunculated lesion with a normal mucosal colour in the right sublingual mucosal, extending from the distal aspect to the anterior regio. The lump was 6 cm × 5 cm. Examination of blood tests, CT-Scan radiology, and FNAB concluded a mixed density hypodense mass with the predominance of fatty tissue in the right sublingual area pushing the tongue to the left. From the biopsy aspiration, it is known that the benign lesion is a lipoma while the blood parameters are within normal limits, histopathology shows hyperplastic (increase cells number) mature fat cells (nucleus at the edge) and intraoral surgical excision is performed. **Conclusion:** Oral lipoma is a benign neoplasm originating from adipose cells. Dentists should aware that lipoma can occur in the oral cavity and can identify oral lipoma to provide appropriate treatment for patients.*

**Keywords:** Excision, Lipoma, Oral Lipoma, Benign Tumor

## 1. Introduction

Lipoma is the most common soft tissue tumor, usually occurring in the upper back, shoulders, abdomen, head, neck and proximal extremities. Based on the histological appearance, lipomas are classified into various subtypes, including fibrolipoma, angioliipoma, myxoid lipoma, spindle cell lipoma (SCL), pleomorphic lipoma (PL), myoliipoma, and chondroid lipoma.<sup>1,2</sup> Lipomas occur within oral cavity (1% to 4% of all neoplasms).<sup>1,3</sup> The pathogenesis of lipomas still needs further research as the metabolism of lipomas is fully associated with body fat. Several studies have also made observations on chromosomes 12q, 13q, 6p.<sup>4,5</sup>

Oral lipoma is a benign soft tissue tumor of mesenchymal origin, slow growing, sometimes found in the buccal mucosa, tongue, floor of the mouth, palate, gingiva, lips, and retromolar area. Their presentation may vary, as in size, shape, colour, consistency and depth. It has different histological variants where the most common are lipoma and fibrolipomas.<sup>3,6</sup> Histological examination is a gold standard for the diagnosis of pathological disease that affect the correct treatment of the disease.<sup>3,4</sup>

Lipoma is the most common mesenchymal neoplasm in the maxillofacial region, but is rare in pediatric populations.<sup>4</sup> Most patients with lipomas are above 40 years of age or older, lipomas are rare in children and

with an equal gender distribution.<sup>7</sup> Lipomas are usually asymptomatic until they grow to a large size and may interfere with speech and mastication.<sup>5,8</sup> The aim of this report is to present a rare case of a 3-year-old female patient with a histopathologically confirmed diagnosis of lipoma.

## 2. Case Report

A 3-year-old girl came with her parents to the oral surgery clinic, Hasan Sadikin Hospital with the chief complaint of swelling in the lower tongue, causing her to have difficulty eating and frequent salivation. The history showed that the lesions appeared almost 2 years prior to the visit. The patient ignores the swelling condition. The chief complaint was the inability to swallow due to an egg-sized lump in the oral cavity and speech impediment.

Extraoral examination revealed no specific abnormalities (Figs. 1, 2 and 3). Intraoral examination showed pedunculated lesion with a normal mucosal colour in the right sublingual mucosal, extending from the distal aspect of 85 to the anterior area covering most of her oral cavity. The surface of the limb is faint yellow; there are tooth grooves on the peripheral. Palpation revealed that the soft tissue structures are not soft and inconsistent. The limb was 6 cm × 5 cm in size, with no visible fluctuations of the pseudo-membrane layer from the peripheral area (Fig. 4).



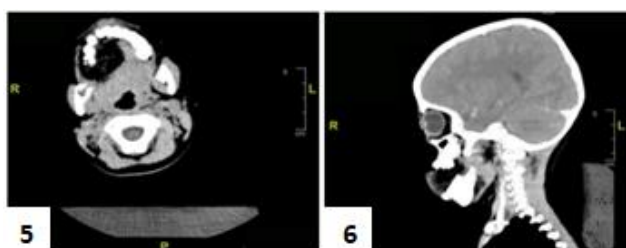
**Extraoral examination (Figs. 1, 2 and 3); There is a lump at the base of the tongue (Fig. 4)**

(image source: Oral Surgery Clinic RSHS Bandung – Indonesia)

Based on the history and clinical examination, the provisional diagnosis of sublingual soft tissue tumor is suspected to be benign, while epidermoid cyst and hemangioma are considered as a differential diagnosis. Examination of blood tests, CT-Scan radiology, and FNAB concluded a mixed density hypodense mass with the predominance of fatty tissue in the right sublingual area pushing the tongue to the left (Figs. 5 and 6). From the biopsy aspiration, it is known that the benign lesion is probably a lipoma while the blood parameters are within normal limits (Fig. 7 and 8). This patient underwent surgical excision intraorally, with intraoperative findings (Fig. 9 and 10). No postoperative complications resulted

from the procedure. Pharmacological therapy was given amoxicillin syr 125 mg at a dose of 3x1 cth per day and ibuprofen syr 120 mg at a dose of 3x1 per day. The patient was given postoperative instructions to maintain oral hygiene.

Histopathology shows hyperplastic (increased cell number) mature fat cells (nucleus at the edge). There is an ulcerated surface tissue with an underlying stroma of edematous vascularity, mixed with mature adipose tissue. The stroma was infiltrated by minimal inflammatory cells, as evidenced in this case. The histopathological diagnosis was a lipoma (Figs. 11 and 12).



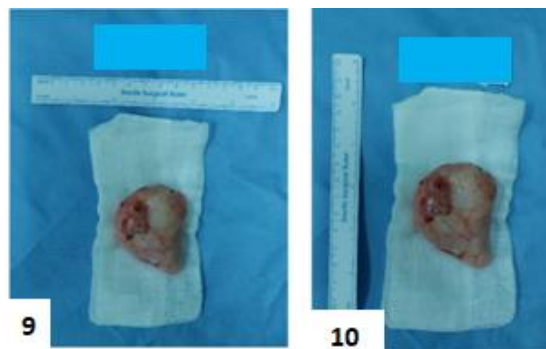
**The CT-Scan image showed a mixed density hypodense mass with predominantly fatty tissue in the right sublingual area pushing the tongue to the left (Figs. 5 and 6)**

(Image source: RSHS Radiodiagnostic Installation Bandung – Indonesia)



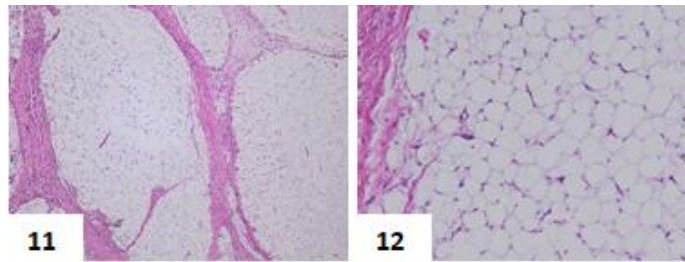
**Surgical excision intraorally (Fig. 7 and 8)**

(Image source: Oral Surgery Clinic RSHS Bandung – Indonesia)



**Intraoperative findings (Fig. 9 and 10)**

(Image source: Oral Surgery Clinic RSHS Bandung – Indonesia)



20x image magnification (Fig. 11) and 400x image magnification (Fig 12)

(Image source: Anatomical Pathology Clinical Laboratory Installation RSHS Bandung – Indonesia)



4th week follow-up (Fig. 13 and 14)

(Image source: Oral Surgery Clinic RSHS Bandung – Indonesia)

The first week of control, complaints in the oral cavity were reduced and sutures were removed. Pharmacological therapy was continued and the patient was asked to maintain oral health. At the next follow-up, the patient's entire oral cavity healed very well, for 4 weeks from the time of the previous control. No lesions were found and there were no fistula or inflammation on the surgical wound (Figs. 13 and 14).

### 3. Discussion

Lipomas are often found in adults with a male and female predilection of 1.9:1.9. This case report is the first case of lipoma in a child with a very rare case. Lipoma in the oral cavity is not a malignant tumor, usually representing herniation of the buccal fat pad rather than a true lipoma. Such cases could occur as a result of local trauma in young children and then manifests as a soft mass and compressible, spongy consistency which if grows large, it will compress the surrounding tissue. Other lesions that should be considered in the differential diagnosis of lipoma are oral epidermoid and oral dermoid cysts, and connective tissue lesions such as granular cell tumors, neurofibromas, traumatic fibromas, and salivary gland lesions.<sup>10,11</sup>

The etiopathogenesis of lipoma is still unknown, although changes in metabolism or localization in the surrounding area are supported by the role of several factors, one of which is repeated minor trauma that can trigger the proliferation of fatty tissue, cause chewing, swallowing, and speech dysfunction.<sup>5,12</sup>

The recommended treatment for lipoma is surgical excision. After surgical excision, recurrence and malignant change are rare.<sup>13</sup>The growth of oral lipoma is usually limited, they can reach great dimensions, interfering with speech and mastication and require

excision. Less than 5% of lipoma recur locally. Deeply infiltrated lipomas are difficult to remove and tend to recur.<sup>14</sup> Recurrence is reduced with wide surgical excision.<sup>7,8,10</sup> In this case, there were no specific changes after excision.

### 4. Conclusion

Oral lipoma is a benign mesenchymal neoplasm originating from adipose cells in adipose tissue. Dentists should have special attention, that lipoma can occur in the oral cavity and can identify oral lipomas to provide appropriate treatment, thereby, obtaining comfort and quality of life for patients.

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