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## CASE REPORT

### A Very Rare Site for a Giant Oral Lipoma

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#### ABSTRACT

A lipoma is a soft tissue neoplasm with the uncommon finding in the oral cavity, representing just 1– 4% of benign oral tumours. Most basic locales of the lipomas are the buccal mucosa, tongue, and floor of the mouth with a painless, soft regular outline, smooth-surfaced, yellowish nodules. Histopathologically, an established lipoma looks like typical fat tissue, and it has different variations which less usually observed aside from fibrolipoma. The article introduces a rare case of large oral lipoma in a 50-year-old man on an uncommon site, over the alveolar ridge at the region of previously extracted lower first molar obliterate the buccal vestibule and extend to the buccal mucosa left the side.

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#### INTRODUCTION

A lipoma is a widely recognised tumour of mesenchymal tissue of the body. However, The buccal mucosa is the most broadly perceived pursued by the tongue, the floor of the mouth, and buccal vestibule and unusual case detailed including mucogingival junction<sup>1,2</sup>. While the contribution of the alveolar ridge to a great degree uncommon intraoral site for lipoma which exhibited to this situation.

Intraoral lipomas are about 1-4% of oral benign tumour. They are made out of fat mesenchymal cells, verified by a thin mucosa, and can occur in any tissues or organ of the body. Their etiology and pathogenesis stay foggy, might be identify with mechanical, endocrine and inflammatory influences<sup>3,4</sup>.

Small oral lipomas are asymptomatic, while huge lipoma cause difficulty in biting, dysphagia and dyspnea no tenderness or pain<sup>5</sup>. Lipomas classified on their

histopathologic findings to simple lipomas, fibrolipomas, angioliomas, intramuscular or infiltrating lipomas, pleomorphic lipomas, spindle-cell lipomas, sialolipomas, myxoid lipomas and atypical lipomas<sup>6</sup>.

Aetiology is obscure but still, heredity, injury, infection, localised necrosis, trauma recommended as an etiological factor<sup>7,8</sup>.

## CASE PRESENTATION

Patient presented to an oral and maxillofacial surgery department in Basrah dental college, University of Basrah, has an asymptomatic mass left cheek, two years duration. The patient is 50 years old, gave a history of difficult extraction of lower left first molar because of periapical infection. The growth interferes with mastication. The patient is healthy; all investigation is normal. He has asymmetrical face due to the swelling in the left cheek extend to the submandibular region (Figure 1a), no lymph node enlargement. Intra-oral there is a mass over the alveolar crest of the mandible left side obliterated the attached gingiva, buccal vestibule, and the buccal mucosa, the mass is yellow, soft in consistency, smooth, covered by normal mucosa. The growth was huge, not-tender and not pulsatile (Figure 1b). The differential diagnosis includes dermoid cyst, mucocele, hemangioma, or lymphangioma<sup>9</sup>. Depending up on its area, a herniated buccal fat of pad should also listed in a differential diagnosis<sup>10</sup>.

All haematological and renal and liver function tests are normal. Conventional radiographic examination, including (OPG) did not disclose any relevant findings. MRI examination shows well-defined fusiform like mass subcutaneously seen at the left cheek region extends to over the mandible, with a clean line of demarcation between the mass and adjacent structures, measuring around (4.5×2.8×1.7cm) in size (Figure 2).

By intraoral approach, the lesion surgically excised under local anaesthesia. Two-sided flap, vertical incision distal to the lower first premolar and enveloped incision including the interdental papilla extended to the lower second molar, at the site of swelling the incision made lingual to the mucosa covering the tumour, blunt dissection used throughout, and the mass completely removed the tumour was yellowish in colour and well encapsulated (Figure 3 a , b). Reposition of the flap, sutured by 3/0 silk with postoperative pressure pack for one hour. Histopathological examination showed mature adipocytes, with clear cytoplasm and eccentric nuclei that goes with classical lipoma (Figure 4). The patient is under follow-up for two years without recurrence (Figure 5).



Figure 1. a. Extraoral swelling in left cheek and submandibular region. b. Intraoral swelling in the left mandibular posterior region.

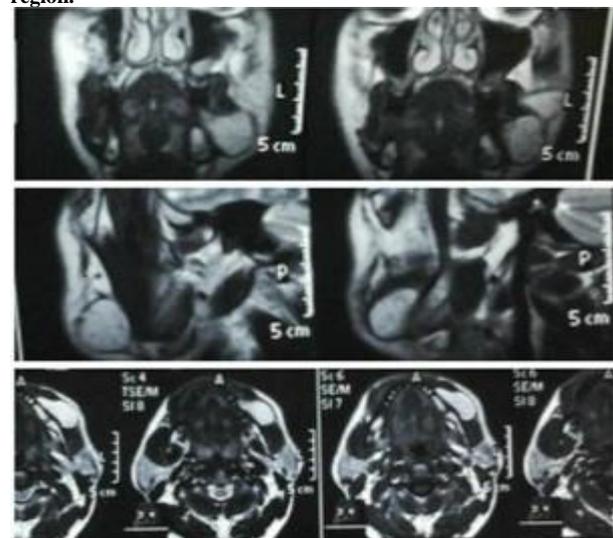


Figure 2. MRI in different sections show :

1. a well-characterized fusiform like mass subcutaneously seen at the left cheek,
2. The mass stretched out over the body of the mandible.

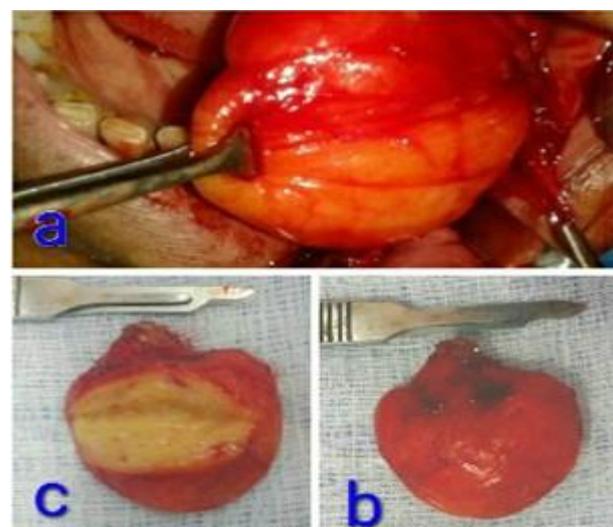


Figure 3. a. Intraoperative photograph shows a huge lipoma. b&c. The mass after excision.

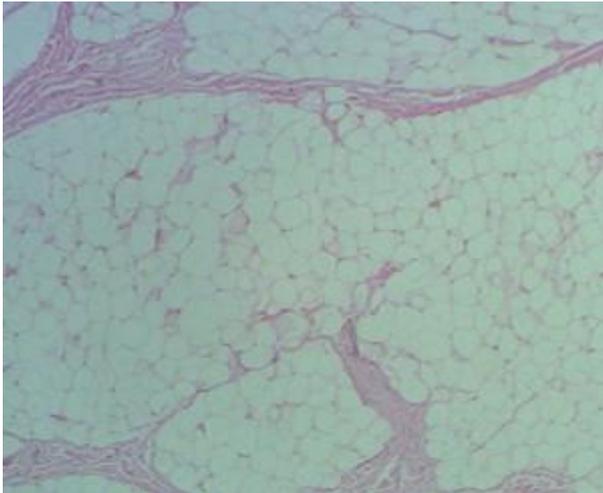


Figure 4. Photomicrograph presenting areas of mature adipocytes in a lobular arrangement with a thin fibrous capsule. (H and E,  $\times 100$ , scale bar = 25  $\mu\text{m}$ ).



Figure 5: a- Intraoral & b- extraoral photograph one year after surgery.

## DISCUSSION

A lipoma is a benevolent moderate developing neoplasm made out of developing fat cells, are all the more regularly found in grown-ups more than 40 years of age. They are found fundamentally on the trunk and appendage than the head and neck<sup>11</sup>, these lipomas less delineated, deep-located, and intriguing the muscles, nerves or synovium are additionally called intramuscular lipoma<sup>12</sup>, however lipoma consider as an uncommon sore in the oral cavity, histopathological investigation of the 300 kind oral tumors, the authors record 9 (3%) lipomas only<sup>13</sup>, while other studies of 125 lipomas were classic lipoma (n = 62)<sup>14</sup>.

Lipoma varies in its metabolism from the ordinary fat cells but they are histologically reasonable. Studies showed lipoma s' fat not used for the hunger period, unlike typical fat tissue<sup>10</sup>. As indicated by "hypertrophy hypothesis" these tumours happen in the oral cavity because of obesity and involuntary development of fat

tissue. In any case, it can't clarify lipomas are happening in destinations without fat. Notwithstanding, "metaplasia hypothesis" expresses that unusual differentiation of mesenchymal cells into lipoblasts prompts the development of lipoma<sup>9</sup>. The separation of mesenchymal precursors (preadipocytes) to develop adipocytes (a procedure activated by the injury) could prompt the arrangement of subcutaneous lipoma, this process effected by local or systemic factors that may cause injury or ischemia<sup>8</sup>, infection and hormonal abnormality may likewise have been involved<sup>10</sup>. The most broadly perceived territories of oral lipoma represented in the buccal mucosa, then in the tongue<sup>6,9,12,13,15</sup> and lower lip mucosa<sup>6</sup>.

A study assessed 207 patients in Japan from 1987 to 2004 has an intraoral lipoma. They found about 40.6% in buccal mucosa, 17.9% in the tongue, 12.6% in the lip, 8.7% in the gingiva, 6.8% in the floor of the mouth, and only 4.8% seen in gingivobuccal overlay and palate<sup>16</sup>. Other study of 450 intraoral lipomas in the vicinity of 1966 and 2009, also show that about n=174; 38.7% in buccal mucosa, n=35; 7.8% vestibule, n=21; 4.7% in retromolar area, and other different destinations n=220; 48.8%<sup>17</sup>. Intraosseous lipomas can make at any age assembling, the intramandibular lipoma winning in fifth and sixth years of life<sup>18</sup>. The oral lipomas were accounted for in restricted numbers<sup>18,19</sup>. Buric states for intramandibular lipomas a slightly more in male (gender orientation proportion: 6/4 to support men)<sup>18</sup>, while there is no instance of lipoma over the alveolar ridge accounted. Most of the cases are single tumour, and only 5% occur as multiple tumours<sup>19</sup>.

Histologically, lipomas classified to: Simple lipoma, fibrolipoma, myxoid lipoma, spindle cell lipoma, angiolipoma, chondrolipoma, intramuscular lipoma, pleomorphic lipoma and sialolipoma<sup>9,14,15</sup>, histological examination of 390 cases, shows that the most widely recognized one was basic lipoma n=229, 48.7%<sup>17</sup>. Another histopathological study of 207 instances of oral lipoma appears 69.0% simple lipoma<sup>15</sup>. Furthermore investigation of 95 oral lipomas they found that the most widely recognised example was simple lipomas n=40, 42%<sup>9</sup>.

The most regular size was 10– 19 mm (37.5%), 0– 9 mm (27.8%), 20– 29 mm (14.6%), and tumours 30 mm or bigger were generally rare<sup>13</sup>. Scarcely any extensive size oral lipoma announced like lipoma expelled from the buccal mucosa around (4  $\times$  3.5  $\times$  1.2) cm about 16.8 cm<sup>3</sup><sup>20</sup>, other removed from the floor of the mouth which is near (7  $\times$  2  $\times$  1) cm about 14 cm<sup>3</sup><sup>21</sup>, while for this case the size was (4.5 $\times$ 2.8 $\times$ 1.7) cm about 21.42 cm<sup>3</sup> consider the biggest than alternate investigations.

The surgical treatment for lipomas is complete excision with capsule<sup>15,22,23</sup>. Recurrence diminished by wide excision to surrounding tissue. Penetrating lipomas are hard to excise and at risk to recurrence. Clinical examination should be related to radiological and histopathological examination to onfirm the diagnosis. Histological examination remains the best quality level in the conclusion of lipoma. A preoperative MRI is an

absolute necessity to know the degree and spread of the lipoma<sup>24</sup>.

## CONCLUSIONS

Lipomas are regular benign tumours of the human body, however extraordinary in the mouth. In the event that lipomas touch base everywhere measurements may meddle with speech and chewing. Oral lipomas may be seen over the alveolar ridge of the mandible, and certainly diagnosed histologically.

A surgical extraction is the primary treatment of the oral lipomas and is hard to perform for infiltrated lipoma, which prompts expanded postoperative relapse rate.

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