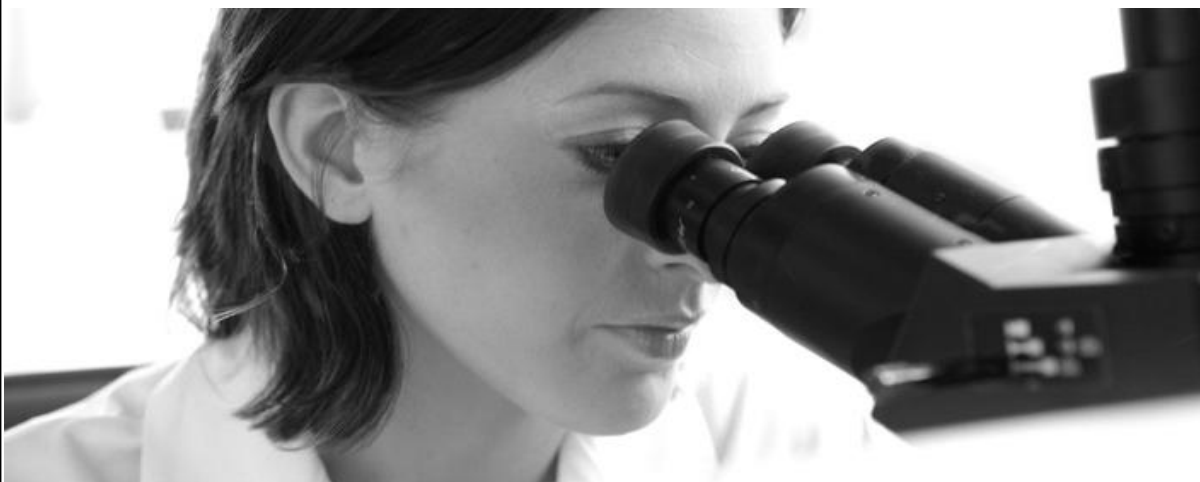


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CASE REPORT

INTRAORAL LIPOMA : REPORT OF A RARE CASE WITH DIODE LASER EXCISION

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ABSTRACT

Lipoma is a benign mesenchymal neoplasm of soft tissue composed of mature adipocytes that can be found in any part of the human body. Their presence in the oral mucosa is uncommon with approximately 1-4% of the cases occurring in the oral cavity. Intraorally, it is common in buccal mucosa followed by tongue, floor of the mouth, buccal vestibule and rarely in the palate, gingival & retromolar area. Here we present a case of lipoma occurring in a 40-year-old patient in the retromolar area which is unusual. An excisional biopsy with diode laser was performed and histopathology examination revealed presence of adipocytes arranged in clusters with dense fibrous capsule made up of densely packed collagen fibres.

Key words:

Benign mesenchymal neoplasm,
lipoma, retromolar area, diode
laser surgery.

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INTRODUCTION

The first description of oral lipomas was given by Roux in 1848 and referred it as a "yellow epulis".^[1] Lipomas are benign soft tissue mesenchymal neoplasms with 15-20% of cases involving the head and neck region and approximately 1-4% affecting the oral cavity.^[2,3] They are seen as long-standing soft nodular asymptomatic swellings covered by normal mucosa. They mostly occur in the areas of fat accumulation, especially the cheek, followed by the tongue, floor of the mouth, buccal sulcus and vestibule, lip, palate, and gingiva.

Though the etiology is unknown, possible causes can be trauma, infection, chronic irritation, hormone alteration, metaphase of muscle cells, lipoblastic embryonic cell nest in origin.^[4] Although benign in nature, their progressive growth may interfere with the speech and mastication. In most of the cases the size of the lesion is less than 3cms, but can increase upto 5-6cms over a period of few years. It is most common in adults. The female to male ratio for all lipomas is 2: 1, but oral lipomas occur more in men than in women (1.5: 1).^[5]

Clinically oral lipomas present as solitary, mobile, painless, submucosal yellow color nodules which may be pedunculated

or sessile.^[6] The consistency varies from soft to firm depending on the quality, distribution of fibrous tissue & depth. It ranges in size from a small lesion to a massive tumor 5×3×2cm.^[7] Histologically, they can be classified as simple, fibrolipoma, spindle cell, intramuscular or infiltrating, angiolipoma, pleomorphic, myxoid, and atypical lipoma. Intramuscular or infiltrating lipoma is an uncommon mesenchymal tumor, usually appearing in the extremities or trunk but rarely occur in the oral cavity.^[8] Multiple head and neck lipomas have been observed in neurofibromatosis, Gardner syndrome, encephalocraniocutaneous lipomatosis, multiple familial lipomatosis and Proteus syndrome. Differentiating it from other mesenchymal tumors is important as it plays a major role in diagnosis and treatment planning. This article presents a rare case of intraoral lipoma in retromolar area.

Case Report

A 40-year-old female patient reported to the Department of Oral Medicine & Radiology, with a chief complaint of a swelling in the left retromolar region for the past six months. It was initially small and has grown to the present size. Patient did not give any history of pain. Occasionally, the patient felt discomfort while eating. Her family and personal history were

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non contributory and no abnormalities were present in her general physical and systemic examination.

Intraoral examination of the lesion revealed a 1×1cm well circumscribed, pedunculated, smooth surfaced growth in the left retromolar area (Fig. 1). The color of the growth was similar to that of adjacent mucosa. On palpation, it was soft, fluctuant, nontender and mobile. The margins were slippery under the palpating finger. The swelling was non-pulsatile. Based on the above findings, a provisional diagnosis of lipoma was given along with a differential diagnosis of fibroma.



FIG. 1: Intraoral Photograph of well circumscribed, smooth, slippery, nontender mass



FIG. 2: After laser excision



FIG. 3: Excised specimen

With a provisional diagnosis of oral lipoma; under local anesthesia, excision of the lesion along with some normal tissue with diode laser of 300 μm-fiber tip, 810 nm wavelength and 3W power was performed (Fig. 2). A pedunculated, well-circumscribed, soft tissue mass was excised and submitted for microscopic examination in 10% buffered formalin (Fig. 3). The patient was followed after 1 week and a good healing was observed.



FIG. 4: Microscopic view

Histopathological examination revealed presence of adipocytes arranged in clusters with dense fibrous capsule made up of

densely packed collagen fibres. Correlating the clinical and histological features, a final diagnosis of intraoral lipoma of the retromolar area was given (Fig. 4).



FIG. 5: Follow up photograph (3days)



FIG. 6: Follow up photograph (1 month)

The patient came for follow up twice after laser treatment (Fig. 5 & 6) and was fine with no evidence of any recurrence. The patient is still under follow-up.

DISCUSSION

Lipomas are usually soft, well circumscribed, mobile, slow growing and asymptomatic tumor composed of mature adipose cells.^[9] The pathogenesis of lipoma is uncertain but they appear to be more common in obese people. However, the metabolism of lipoma is independent of normal body fat.^[10] The accepted classification of benign lipomas include : Classic lipoma; lipoma variants, eg angioliipoma, chondroid, myoliipoma, spindle cell, hamartomatous lesions; diffuse lipomatous proliferation and hibernoma.^[11]

Among the reported, intraoral lipomas, 50% presented in the buccal mucosa, a region rich in fatty tissue. Other sites of common occurrence are floor of mouth and lip. The least favored sites are palate, gingiva and retromolar area. In our case the unusual finding was the site of the lesion which was the retromolar area.

Most patients with lipoma are above 40 years of age or older and the literature describes a male predilection for oral lipomas^[12] but in our case it was 40-years-old female patient. It rarely affects the normal functions but in our case the unusual location was hindering the patient's masticatory efficiency.

Furlong *et al.*, studied 125 cases of head and neck lipoma at year 2004, and showed that the average duration for these tumors was 3.2 years.^[13] Our patient mentioned that he had the lesion since 6 months.

The principle differential diagnosis of lipoma is fibroma which is composed of fibrous tissue and is much more firm. In view

of their similar clinical features salivary gland lesions (mucocele), lymphoepithelial cyst, oral dermoid and epidermoid cyst must be included in the differential diagnosis. Mucocele is very similar but the most common site is lower lip and lymphoepithelial cyst usually occur in third decade of life and most common sites of involvement are floor of the mouth, soft palate and mucosa of pharyngeal tonsils which is uncommon for oral lipomas. Oral dermoid and epidermoid cyst most commonly occurs in midline of floor of the mouth. Lipoma may show alteration on conventional radiographs. Lipomas have a less dense and more uniform appearance than the fibrovascular tissue when transilluminated. MRI scans are very useful in the diagnosis than CT scans and Ultrasonography is less reliable.

The histopathology remains the gold standard in the diagnosis. Histologically they are classified as simple or variants such as fibrolipoma, spindle cell lipoma, infiltrating lipoma, angiolipoma, sialolipoma, pleomorphic lipoma, myxoid and atypical lipomas. The most common subtype in oral cavity was simple lipoma which was reported in our patient.

The treatment of oral lipoma, is surgical excision and no recurrence has been observed.^[14] The diode laser can be used as a modality for oral soft tissue surgery. Excision with laser would reduce bleeding and scarring of the surgical site, as compared to simple surgeries. The diode laser can be applied for excision of oral soft tissue.^[15] In our cases, we used diode laser to cut the base of the lesion. The patient had experienced a surgery with complete comfort and without bleeding and after 1 week the site of surgery had a very good appearance.

CONCLUSION

To conclude lipomas found in the oral and maxillofacial region are usually slow growing lesions. The clinical course is usually asymptomatic until they get larger in size. Intraoral lipomas are rare entity which may be noticed only during routine dental examination. Oral lipomas must be excised surgically, and microscopic examination must be performed on the tissue to ascertain the clinical diagnosis. Diode laser surgery for the treatment of lipoma appears to be a convenient alternative to conventional blade surgery and has proved to be effective. In our patient, this surgical procedure allowed conservative treatment of the tumour, with no intra-operative haemorrhage, minimal tissue scarring, prompt recovery of the patient and without damage to the histological features of the lesion that might impair the correct diagnosis. Thus, clinicians must be able to recognize such rare lesions to provide appropriate treatment thereby, ensuring comfort and quality of life for the patients.

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