PEDUNCULATED FIBROLIPOMA OF INTERDENTAL PAPILLA : REPORT OF A RARE CASE AND LITERATURE REVIEW

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Abstract:

Objective

Fibrolipoma is an unusual histological variant and a rare subtype of lipoma. It has been reported infrequently within the oral cavity on various sites including, lips, buccal mucosa, retromolar area, buccal vestibule, tongue and floor of the mouth whereas, gingiva has been reported to be the least affected site. Here, we present a case of oral fibrolipoma of the gingiva in the mandibular arch that presented itself in relation to 34, 35.

Clinical Presentation and Intervention

A 56 year old patient reported with a chief complaint of an asymptomatic growth with respect to his lower left posterior tooth region. The provisional diagnosis of fibroma was made and complete excision of the lesion was done. The histopathological examination of the excised tissue revealed it to be a Fibrolipoma of gingiva. One year follow up was done for the patient who showed no recurrence of the same.

Conclusion

Fibrolipomas are rarely encountered in the oral cavity. They exhibit clinical characteristics which are similar to many lesions, thus they are often misdiagnosed. This case report highlights the importance of conducting histopathological examination for the identification of such lesions.

Key-words: Fibrolipoma, Lipoma, Gingiva, Excisional biopsy

Introduction:

Lipomas are benign soft tissue tumors that are predominantly developed in the subcutaneous tissues and account for 1% of all the benign oral tumors. [1] A fibrolipoma is an extremely rare histological variant of lipomas accounting for 1.6% of the facial lipomas, arising from the connective tissue. They

are made up of mature adipocytes and plentiful amounts of fibrous tissues. Although, they generally have benign nature, but an increase in the tumor's dimension due to it progressive growth may pose interference with speech, mastication and poses discomfort to the patient. However, clinical symptoms like pain and bleeding are rare. [2]

Fibrolipomas occur more frequently in the extraorally (namely esophagus, pharynx, colon, trachea, larynx, and other locations) than intraoral sites. Intraorally they are often reported in the buccal mucosa, lips, tongue, palate, buccal vestibule, floor of the mouth, and retromolar area.[3] However, fibro-lipomas arising from the gingiva are extremely rare with only a few cases reported with complete documentation.[4] Here, we report a case of fibrolipoma, a rare subtype of lipoma involving the interdental papillary region of gingiva in a 56 year old male patient.

Case History:

A 53-year-old systemically healthy, male patient reported to the Department of Periodontology, School of Dental Sciences, Sharda University, Greater Noida, India, with the chief complaint of gradually increasing, painless and non-bleeding growth in relation to his lower back teeth for the past one year.[Fig 1] The growth was interfering with the normal processes like closing the mouth and chewing causing continuous discomfort to the patient. Medical and family histories were non-contributory. He also gave a history of a similar growth in the same region three years back, which was diagnosed histopathologically as a fibroma and managed by surgical excision.

Intraoral examination revealed a single, smooth, pedunculated growth with well-defined margins which was involving the interdental papilla and attached gingiva between premolars i.e. 34, 35 from the lingual aspect. On palpation, the growth appeared firm, non-tender, mobile and was not associated with any pain or bleeding. However, the overlying mucosa revealed evidence of inflammation, ulceration and the indentation marks from the opposing teeth. Radiographic examination revealed bone loss around the involved second premolar up to middle third of the root.[Fig 2]

Based on the patient's previous history and clinical findings a provisional diagnosis of fibroma and differential diagnosis of lipoma, pyogenic granuloma and neurofibroma was made. Surgical excisional biopsy of the growth was proposed. The patient was explained about the procedure and an informed

written consent was taken from the patient. Routine blood investigations were conducted and the results were found to be within normal limits.

After phase I therapy, application of infiltrating anesthesia of 1.8 ml of 2% lidocaine with epinephrine 1:80000 in the area was done and an excisional biopsy of the lesion was performed under aseptic conditions. The incision was given extending 2mm beyond the lesion and involving the interdental papilla on the facial as well as lingual side of 34,35. Once the complete excision of the growth along with the periosteum was done, the tissue was immediately transferred to a container containing 10% buffered formalin and was send for routine histopathological evaluation.[Fig 3] The area was then covered with periodontal dressing and patient was recalled after 10days for re-evaluation. The growth was 2x1x1 cm in dimension.[Fig 3] Microscopic examination of the specimen revealed para-keratinized stratified squamous epithelium in association with underlying densely collagenous connective tissue stroma. Epithelium was hyperplastic and atrophic at areas, with flattened retepegs. Connective tissue stroma showed mature adipose tissue, interspersed by fibrous tissue.[Fig 4,5] Correlating the clinical and histopathological examination, the excised lesion was diagnosed as a Fibrolipoma. The postoperative period for the patient was uneventful and the patient was followed up to one year and no recurrence was observed.[Fig 6]

Discussion:

Lipoma is a benign neoplasm having mesenchymal origin and is composed of mature fatty cells generally surrounded by a thin fibrous capsule. The presence of lipoma in the oro-pharyngeal region is extremely uncommon. The case of oral lipoma was first documented by ‘Roux’ in 1848, he termed it as “The Yellow Epulis”. The incidence rate and prevalence rate of oral lipoma of all benign oral lesions is about 1%–4% and 0.0002% respectively. Generally, lipomas occur in the fourth and fifth decades of life, without any gender preference.[5]

Fibrolipoma is an extremely rare subtype of lipoma and occurs uncommonly in the oral cavity, corresponding to only 0.1 to 5% of benign tumors of the mouth. Also, intraorally they occur primarily in the areas of fat accumulation, especially in the cheek, followed by the tongue, the floor of the

mouth, the buccal sulcus and buccal area, lip and palate.[2]

The reports of fibro-lipoma arising from attached gingiva or interdental papilla are extremely rare with only a few cases reported in the literature with complete documentation.[4] The present report describes a new case of this uncommon oral tumor that was present in the mandibular arch and was associated with the attached gingiva and interdental papilla with respect to 34,35.

The etiology of lipoma is uncertain, where most of the lesions comprise developmental anomalies. Currently, the most probable etiology of lipoma includes trauma, fatty degeneration, hereditary, hormonal basis, metaplasia of muscles and lipoblastic embryonic cell nest origin. Also, few studies suggests that they may arise due to rearrangement of chromosome numbers 12q, 13q, and 6p.[6] In the present case, the etiology might be the chronic trauma from sharp cuspal tips of the opposing teeth.

The clinical features of this tumor may differ depending upon the location of the lesion. However, they usually manifest as asymptomatic, slow‑ growing, sessile, round‑ to‑ ovoid submucosal nodules which are covered by the mucosa. Their size may differ from 0.2 to 1.5 cm to upto 5cm in diameter.[7] Signs and symptoms may include a sense of fullness and discomfort with functional problems like dysphagia, difficulty in speech, and mastication in case of larger tumors.[3] Complications are rare and few however, long‑ standing cases may convert into liposarcomas.[8] In the present case, the lesion as long standing for one year and had achieved a dimension of 2*1*1 but no major complications were encountered except for difficulty in mastication.

These lesions can be easily diagnosed if present superficially however, the diagnosis of deep-seated lesions is difficult. Their differential diagnosis includes intraoral lipoma consisting of oral dermoid and epidermoid cysts, oral lymphoepithelial cyst, benign salivary gland tumor, mucocele, benign mesenchymal neoplasm, ranula, ectopic thyroid tissue, and lymphoma.[9] In the present case, differential diagnosis includes fibroma, pyogenic granuloma and neurofibroma since, the lesion was clinically firm in consistency, ulcerated with a history of trauma.

Histologically, lipomas are classified as conventional lipoma, fibrolipoma, myolipoma, pleomorphic lipoma/ spindle cell, angiolipoma, myxolipoma, condrolipoma, osteolipoma, lipomatosis, lipomatosis of the nerve, lipoblastoma, and hibernomas.[10] Compared to conventional lipoma, fibrolipoma is an

extremely rare subtype. Histologically, fibrolipoma comprises of mature adipocytes subdivided into lobules by fibrous connective tissue shoots. [3] In the present case, similar finding were observed with the presence of lobules of adipocytes separated through fibrovascular septa and the connective tissue consisting of haphazardly arranged collagen fibers.

The most accepted modality for the management of intraoral fibrolipoma is complete surgical excision. For the lipomas which are greater than 1 inch in diameter steroid injection leading to the shrinkage of adipose cells due to cellular atrophy has been suggested. Also, repeated monthly injections of lidocaine and triamcinolone acetonide (1:1 ratio) into the central region of tumor may be useful in regression of lesion.[11] No recurrence has been described after local excision in the literature.[6] However, in the present case the patient has given a history of similar lesion two years back at the same location which was earlier excised surgically. The recurrence may be due to the incomplete removal of the lesion. The patient has been followed for one year after the present surgical excision and no recurrence can be seen till date.

Conclusion

Intraoral Fibrolipomas are rare histological entity of lipomas, which may be encountered in the oral cavity during routine dental examinations. The clinical course is generally painless and asymptomatic until they achieve a large size and poses difficulty and discomfort to the patient. Therefore, the role of a clinician becomes crucial to identify and diagnose this intraoral lesion. Diagnostic aids such as ultrasonography, computed tomography, and magnetic resonance imaging may be performed to know the extent, location, and margins of the mass in case of infiltrating lipoma. However, the role of biopsy and histopathology needs to be emphasized in their correct diagnosis. Once identified conservative treatment protocol should be followed without causing much discomfort to the patient.

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Figure with legends

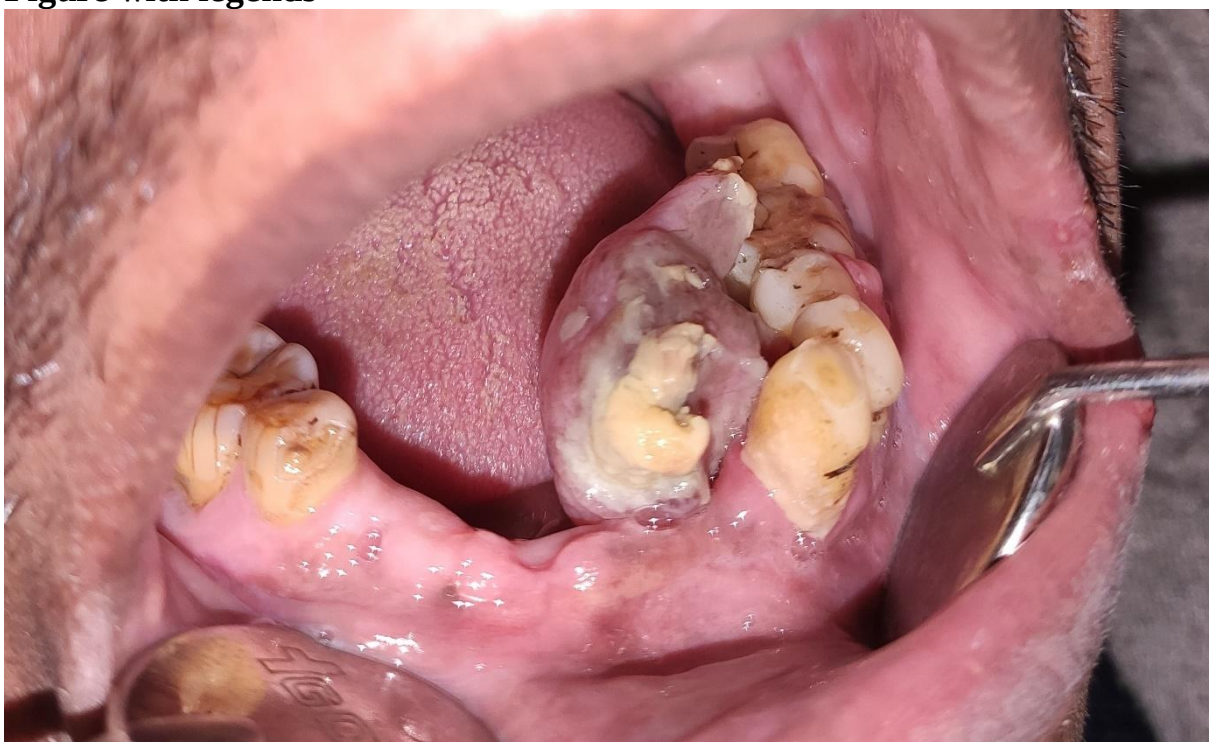

Fig 1 Pre-operative image demonstrating tumorous growth in the third quadrant

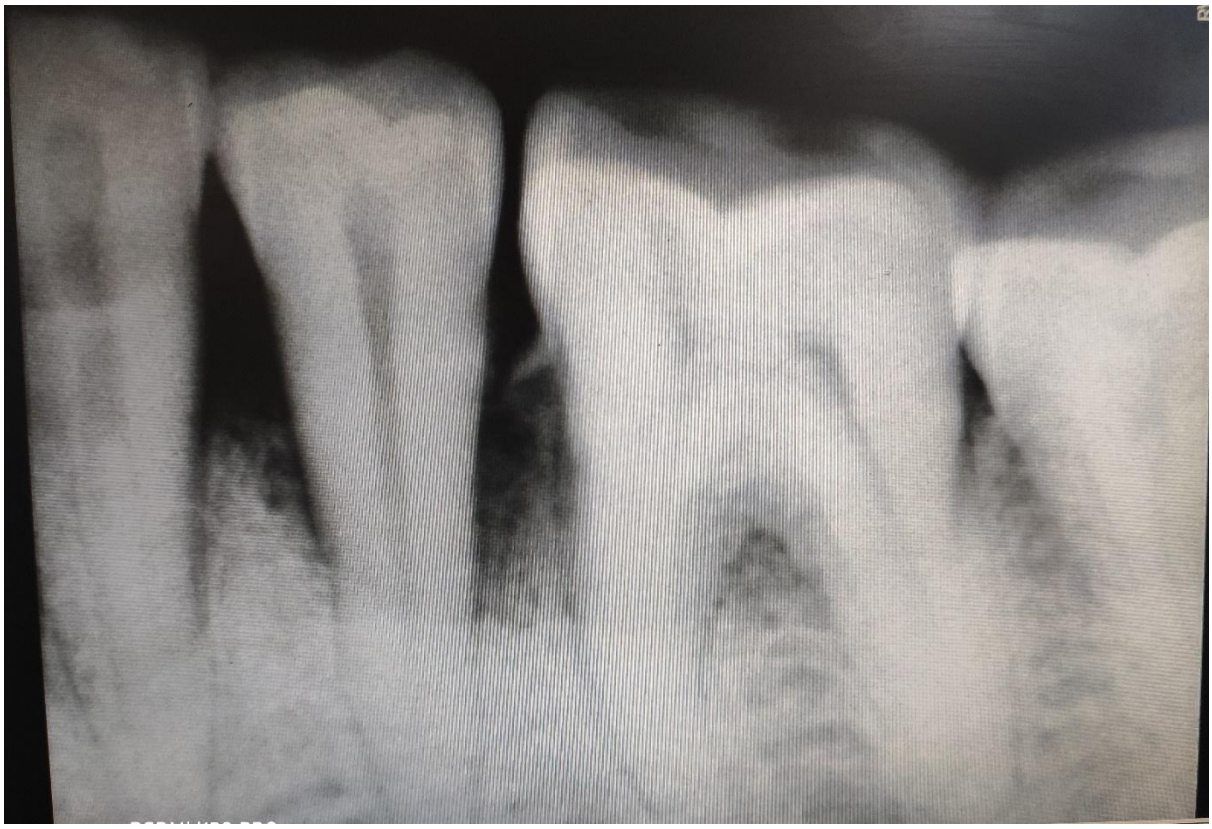

Fig 2 Radiograph showing bone loss around involved premolar, 35

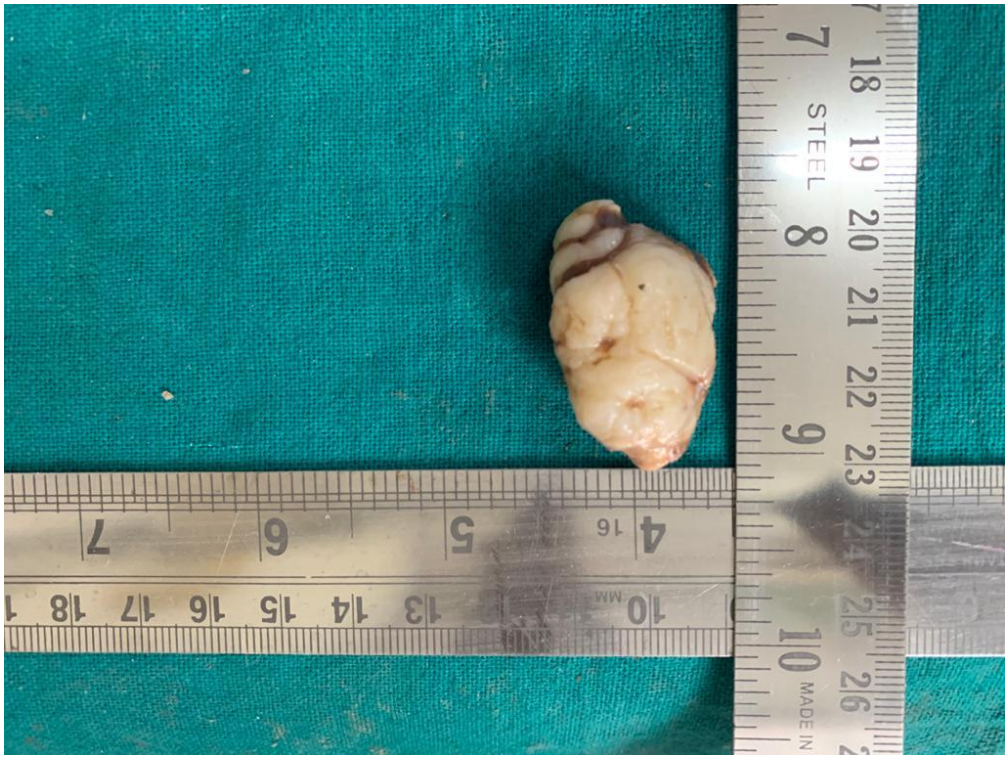

Fig 3 Excised tumor specimen 2x1 x1 cm in size.

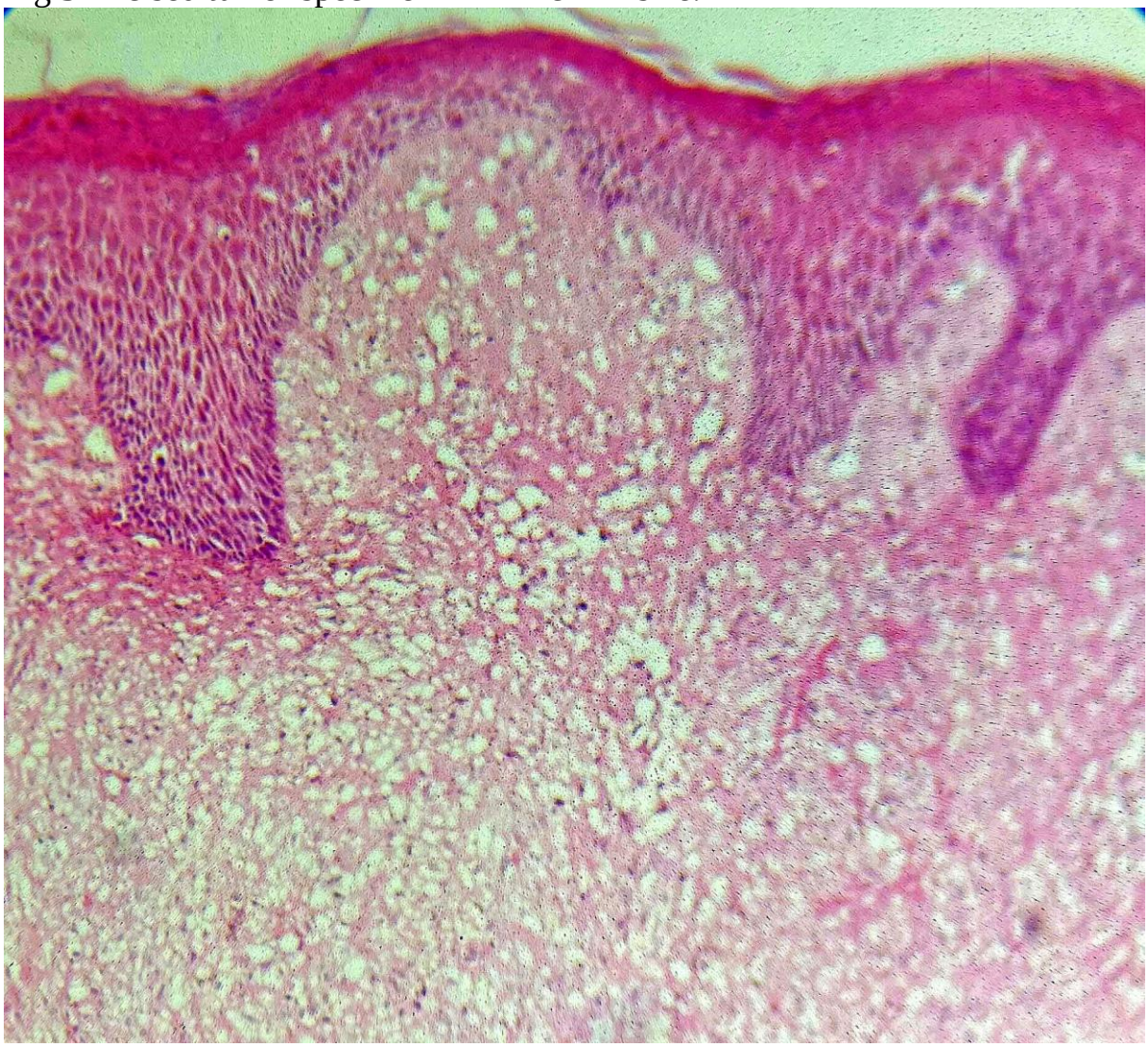

Fig 4 Histopathology shows stratified squamous epithelium overlying connective tissue

stroma. (H & E stain x100).

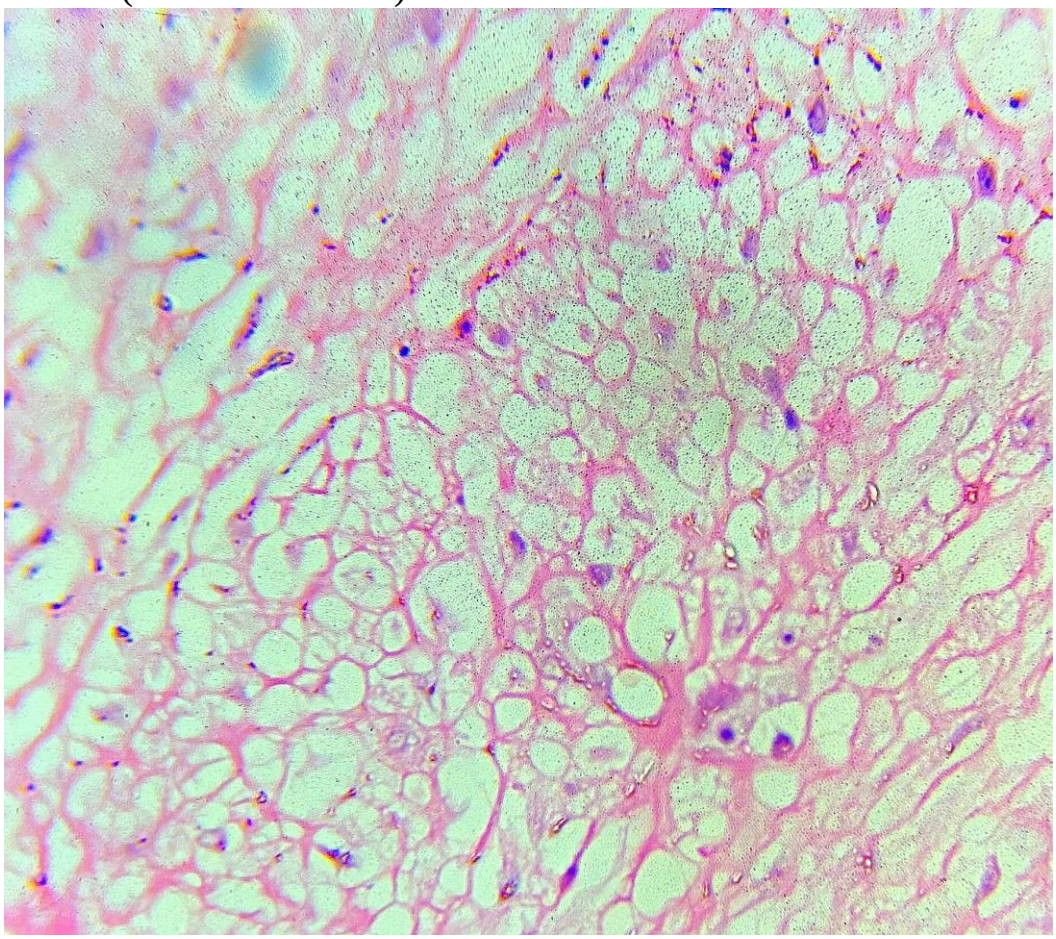

Fig 5 Connective tissue stroma reveals mature adipocytes amidst collagen fibers with fibroblasts. (H & E stain x400).

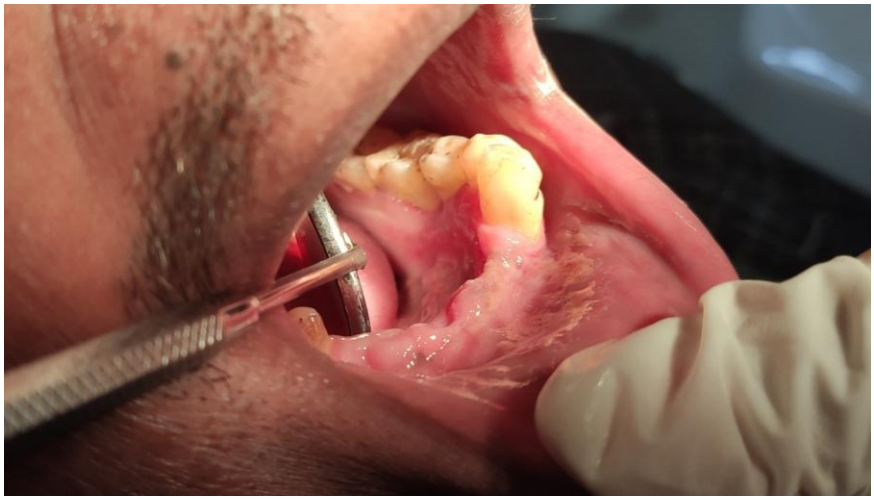

Fig 6 One year Post-Operative picture showing no recurrence.

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