Management of a swelling in the aesthetic area

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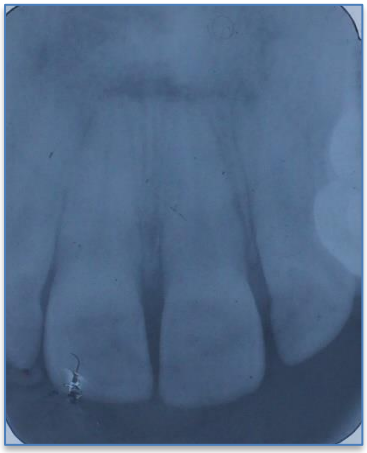
Initial Presentation

A 28-year-old lady reported to the outpatient department with a presenting complaint of swelling in upper gums near the front teeth for 6 months. She noticed the swelling while brushing 6 months back which was small at that time. It gradually increased in size and reached the present size. She was concerned about the swelling's “unsightly” appearance. Upon examination she presented with clinical gingival health, full mouth plaque score and full mouth bleeding score less than 10%. She practised good self-performed plaque control. A firm and sessile gingival swelling was present in relation to the marginal and attached gingiva of UL1, 10 x7mm in size without involving the interdental papilla. The probing pocket depth ranged between 2-3 mm and there was no attachment loss. The swelling was confined to marginal gingiva with no evident pseudo pockets.

Medical History

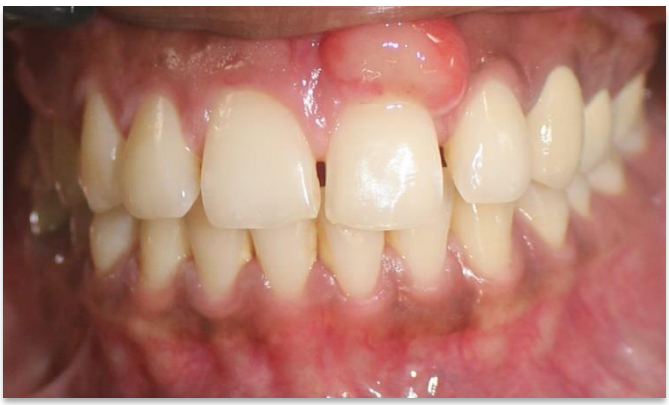
She had a history of miscarriage 1 year ago, otherwise fit and well.

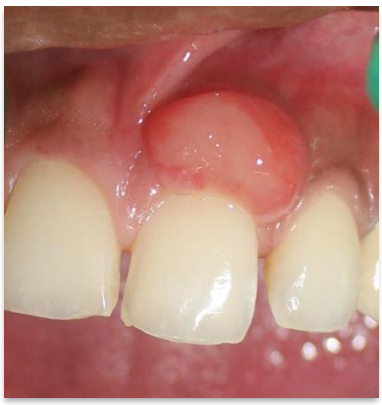
Preoperative radiograph

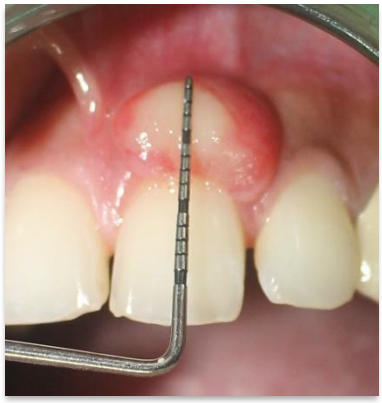
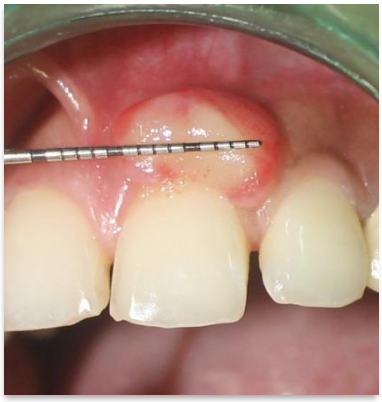
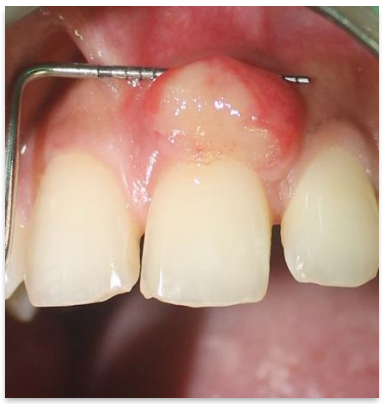
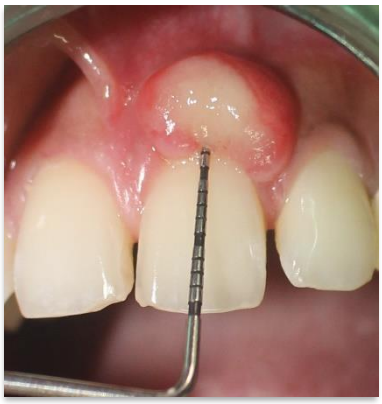


The intraoral periapical radiograph revealed no crestal bone loss or any pulpal or peri apical pathology. The lamina dura in relation to UL1 appeared to be normal.

Preoperative photographs





The fibrous swelling blanched while pressure was applied on it with a periodontal probe.

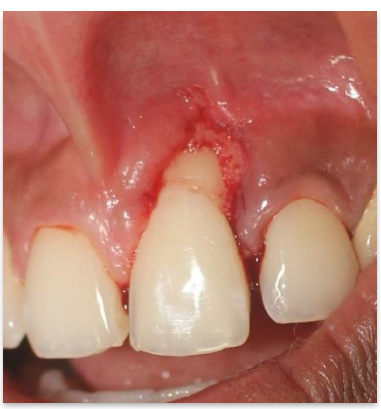
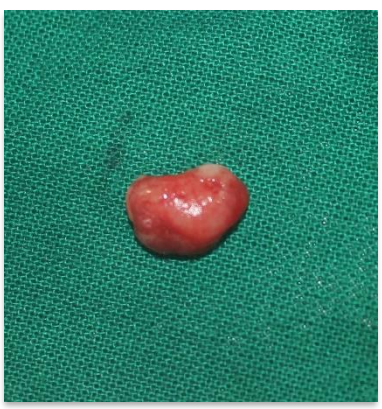
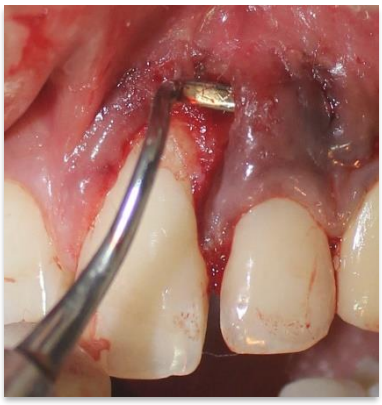
Treatment Plan: A provisional diagnosis of fibrous epulis was made and excisional biopsy was planned. However, since excision of such large lesion in relation to the labial aspect of an upper lateral incisor could result in an unesthetic soft tissue defect, it was decided to employ modified coronally advanced tunnel technique (MCAT) with connective tissue graft (CTG)[1] after the excision of the pathology as a combined procedure.

Step 1

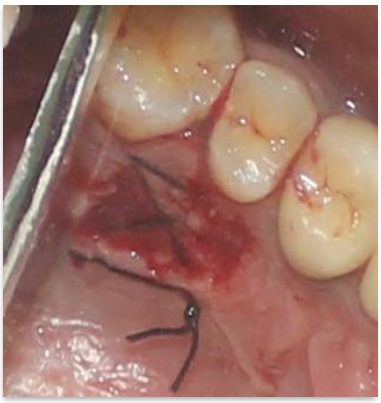
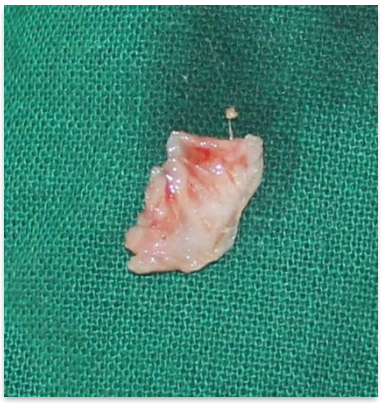
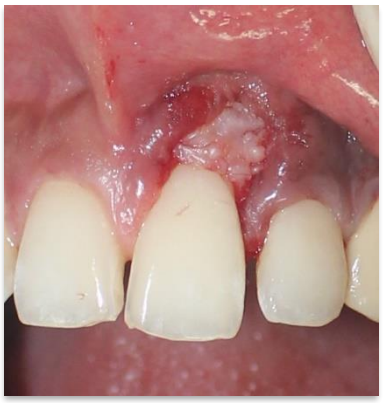
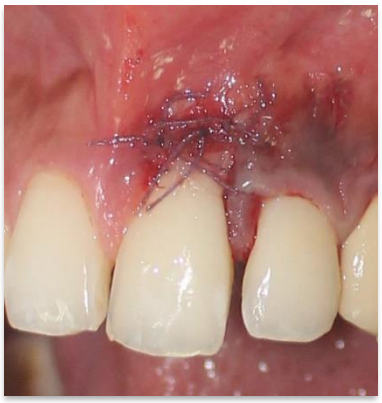
Patient education and instruction on self-performed plaque control followed by supra gingival professional mechanical plaque removal (PMPR).

Surgical management

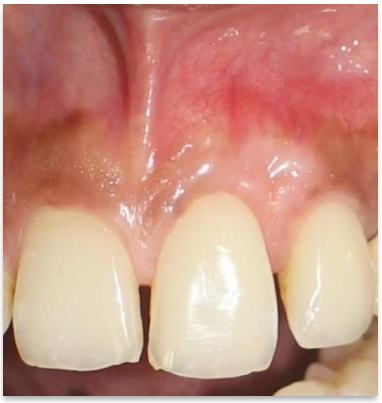
After a month, the patient was reassessed and informed consent was obtained for the surgical phase. Utilising an internal bevel incision under local anaesthesia, the sessile mass was excised with a no. 15 surgical blade. From the margins of the soft tissue defect a full thickness tunnel was performed in relation UL2 and it was extended as partial thickness over the labial aspect of UR1. This facilitated tension free flap advancement and coverage of the CTG.

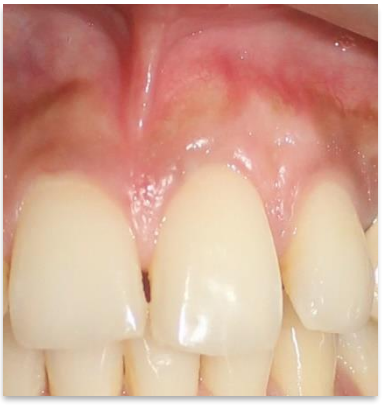




The CTG was prepared after extraoral de-epithelialisation of free gingival graft harvested from the left palate. The CTG was then inserted into the prepared tunnel, the flap was coronally advanced to cover the graft and sutured using 4-0 resorbable sutures. The donor site was sutured using 3-0 silk and a pre-fabricated acrylic stent was inserted for wound protection and patient comfort.

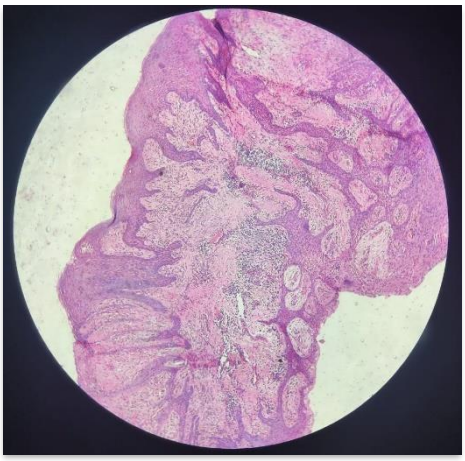





Outcome


1 month postoperative


6 months postoperative

The histopathological report revealed fibroepithelial hyperplasia.



DISCUSSION

Epulis, or localized gingival enlargement, refers to any solitary/discrete, pedunculated, or sessile swelling of the gingiva with no histologic definition of a specific lesion. For these types of swellings, the corrected phrase "reactive lesion of the gingiva[2] appears to be more applicable. The most common diagnosis in this category is inflammatory rather than neoplastic. Such swellings in the esthetic zone pose several issues to patients like unaesthetic appearance and difficulty in speech as well as difficulty in chewing and maintenance of oral hygiene. Excisional biopsy is the treatment of choice for localised reactive lesions.[3] The surgical removal of such lesions at times may exaggerate the esthetic concern. Hence the treatment plan should be made accordingly to address this as well.

Various soft tissue surgical procedures, including coronally positioned flaps, pouch and tunnel, lateral pedicle flaps with or without connective tissue grafts, free keratinized tissue grafts as well as porcine collagen matrix have been utilised to treat similar cases.[4–8] Lateral pedicle flap was avoided because of the possible development of recession in the adjacent teeth, Free gingival graft was not the choice as it may lead to colour mismatch. A combination of excision, tunnelling and CTG was utilised to manage this case. To the best of our knowledge, the use of MCAT with CTG has not yet been employed to cover the defect caused by surgical excision of a lesion. Since the excision and root coverage was done as a single procedure a second surgery was avoided and overall treatment time was reduced. The patient is being followed up on a three-monthly basis and so far, no recurrence is reported in one year.

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