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Medical Science

FRENECTOMY MASKING THE HIDDEN CULPRIT: A CASE REPORT

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ABSTRACT Frenum is bands of muscle or fascia attaching the lips, cheeks,or tongue to alveolar ridges. Archers classical frenectomy is excision of fibre, interdental papillae, and exposure of alveolar bone upto palatine papillae while other techniques like Edward frenectomy, frenum relocation by z-plasty and free gingival graft[1]. Z-plasty is necessary to perform a frenectomy for esthectic psychological, and functional reasons[3]. A case series here is presented .

KEYWORDS : Aberrent frenum, z-plasty, Free Gingival Graft

INTRODUCTION

The frenum is a mucous membrane fold that attaches the lip and the cheek to the alveolar mucosa, the gingiva, and the underlying periosteum[1]. Labial frenii are exiced for variety of reasons.

Labial frenii are excised for a variety of reasons; inadequate width of attached gingiva, tension at interdental papilla causing gingival recession, double lip or midline diastema leading to esthetic compromise and difficulty in placing tooth brush at frenum level creating hinderance in oral hygiene maintenance[3]. A plethora of surgical techniques have been tried with varying degrees of success. These techniques have specific indications. Classical frenectomy devised by Archer et al leaves scar and poses significant postoperative morbid challenge; specifically in case of thick and multiple frenal attachments. Such thick and fibrous frenii are excised using modified techniques such as frenectomy combined with single or bilateral pedicle flaps or by Z-plasty.[4]

We are reporting two cases of thick fibrous papillary or papilla penetrating aberrant maxillary labial frenii, which were treated by Z-plasty technique.

CASE REPORT-1

A 27 year old male reported to the department of periodontics with chief complaint of gap in upper front teeth and difficulty in brushing. Intra-Oral Periapical Radioghraph was taken to find out the cause of diastema and to rule out the presence of any unerupted mesiodens. The diastema was created due to a wide and abnormal labial frenal attachment[12]. A diagnosis of papillary labial frenum was made and frenectomy was planned. Patient was explained about the procedure and informed consent was taken.

TECHNIQUE:

The procedure was done under local anaesthesia consisting of 2% xylocaine with Adrenaline. Infiltration was given on the labial aspect and on the palatal aspect near the base of the papilla. The length of the frenum was incised with the scalpel and at each end, limbs at between 60° and 90° angulation, incisions were made in equal length to that of the band. By using fine tissue forceps, with care not to damage the apices of the flaps, the submucosal tissues were dissected beyond the base of each flap, into the loose non-attached tissue planes. Thus, double rotation flaps which were at least 1 cm long were obtained. The resultant flaps which were created were mobilized and transposed through 90° to close the vertical incisions horizontally. sutures were placed, first through the apices of the flaps, to ascertain the adequacy of the flap repositioning and then they were evenly spaced along the edges of the flaps, to close the wound along the cut edges of the attached mucoperiosteum and the labial mucosa. A periodontal dressing was placed. After 1 week, the dressing was removed, while the remnants of the sutures were left, as resorbable sutures were used. One central incision was given and two lateral incisions at an angle of 45 degree, creating two triangular flaps of equal size and shape. Adequate undermining of surrounding tissues was performed to achieve proper mobilization of the flaps and minimize the distortion of the underlying structures. The two flaps were then transposed to the opposite side of apex of each flap. Transposition of these triangles redistributes tension on the wound and changes central limb direction. They were then sutured to the defect at the opposite side of the other flap base and secured in position by using interrupted braided silk suture. The vertical incision on the attached gingival was also closed by suturing. The periodontal dressing was applied. Anti-biotics and non-steroidal anti-inflammatory drugs were administered for 5 days and routine post surgical instructions were given to the patient. Patient was asked to refrain from brushing and to bite from surgical area to prevent any unnecessary trauma. The sutures were removed after 14days. Healing was found to be satisfactory and no scar formation was detected. No postoperative bleeding, swelling, discomfort due to stretching and pain was reported by the patient.

Similar prtocol was observed with other patients.

CASE REPORT-2

The patient had complaint of small nodular mass of tissue under upper lip. On examination high frenum was found. Same surgical steps were followed.ten days post-operative view shows elimination of nodule and heling with epithelisation in midline apical to the interdental papillae.

RESULTS

The outcome of this study shows that this technique produced pleasing esthetic result.scar formation was not seen as compared. Wider zone of Attached gingiva was seen.Proper healing was noted and no loss of interdental papilla was seen.

DISCUSSION:

Nevertheless, inspite of the various modifications which have been proposed for frenectomy, the widely followed procedure which remains is the classical technique[9]. The classical technique leaves a longitudinal surgical incision and scarring, which may lead to periodontal problems and an unaesthetic appearance, thereby necessitating other modifications.

The Z-plasty technique was found to be ideal for a broad, thick hypertrophic frenum with a low insertion, which was associated with an inter-incisor diastema and a short vestibule. It achieved both the removal of the fibrous band and the vertical lengthening of the vestibule. Various surgical techniques have been proposed for correction of abnormal upper labial frenum. Some of these produce unsatisfactory results. Simple frenectomy with V-shaped incision may result in longitudinal surgical incision and scarring wich may lead to periodontal problems and an unesthetic result. Frenectomy caused by Z-plasty causes minimal streching of lip and esthetically it is advisable.

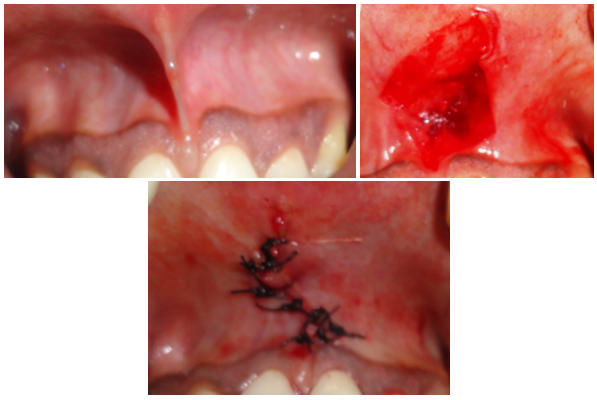
The Z pattern is effective as it promotes re-distribution of tension on the skin and the wound and helps in healing along the skin lines. It helps in

CONCLUSION

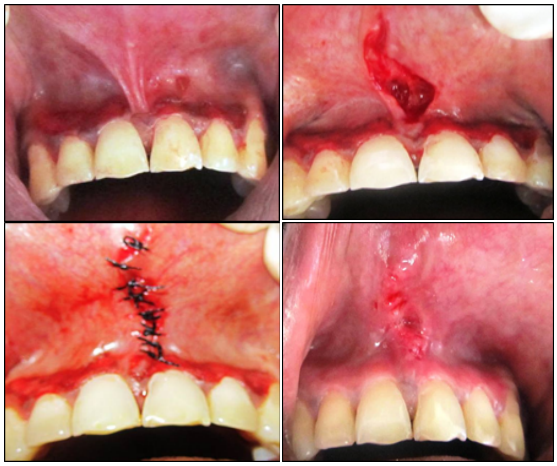
While an aberrant frenum can be removed by any of the modification

techniques that have been proposed, a functional and an aesthetic outcome can be achieved by a proper technique selection, based on the type of the frenal attachment. Though the approaches to the problem of not using the traditional scalpel, like electro surgery and lasers have merits, further improvements can still be attempted.

CASE 1



CASE 2



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