Case Report

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The Use of Buccal Fat Pad in the Treatment of Gingival Recession

Kamal Sagar*, Farrukh Farraz, Arundeep Kaur Lamba***, Shruti Tandon******

Abstract

Buccal fat pad is a deep encapsulated fat located on either side of the face between buccinator and other superficial muscles including masseter zygomaticus major and minor. It has a valuable surgical function and can serve as a well-vascularized,readily obtainable local flap for oral reconstructive purposes like gingival recession coverage.

Keywords: Buccal fat pad; Gingival recession.

Introduction

Buccal fat pad is also known as bichat's fat pad after *"Marie Francois Bichat"* who described the true fatty nature of this tissue earlier it was believed to be a glandular structure.[1] It is located in the masticatory space and consists of an encapsulated central body (corpus) with four extensions i.e. buccal, pterygoid, superficial and deep temporal. The buccal and central part forms more than 50% of BFP and widely used portion clinically.[2] It shouldn't be confused with the malar fat pad and jowl fat pads.3,4 BFP helps in chewing and suckling especially in infants and also acts as a gliding pad that facilitate the action of the muscles of mastication.[5] It may also acts as a cushion to protect neurovascular bundles and sensitive facial muscles from injury.[6,7] This fat pad is widely used for various surgical procedures like facelift, oroantral-fistula, repair of congenital cleft palate and ginigival recession coverage.[8,9,10]

This case report describes the use of a pedicled buccal fat pad (PBFP) flap for root coverage in Miller class III recession defect.

Case Report

A 35-year-old healthy male patient reported to the department of periodontics (Maulana Azad Institute Of Dental Sciences, New-Delhi) with chief complaint of sensitivity and root exposure in the left maxillary Ist molar (Fig 1). On intraoral examination the patient had Miller Class III Gingival recession with the absence of 6-7 mm of keratinized gingiva over the offending tooth. There was no mobility and

Figure 1: Preoperative 6-7mm recession

Author's Affilation: *MDS (Periodontics), **Associate Professor, ***Professor & Head, ****Associate Professor, Dept. of Periodontics, Maulana Azad Institute of Dental Sciences, New Delhi, India.

Reprints Requests: Dr. Kamal Sagar, MDS (Periodontics), Maualana Azad Institute of Dental Sciences, New Delhi, India.

E-mail: dr.kamalsagar@gmail.com

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Figure 2: Incision

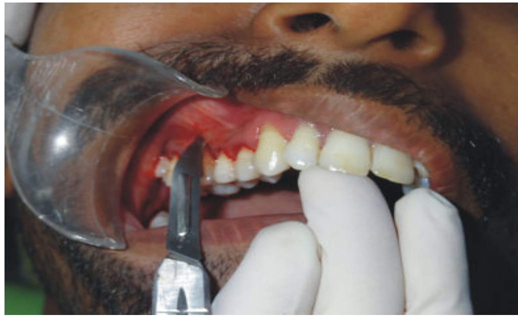

Figure 3: Area Exposed

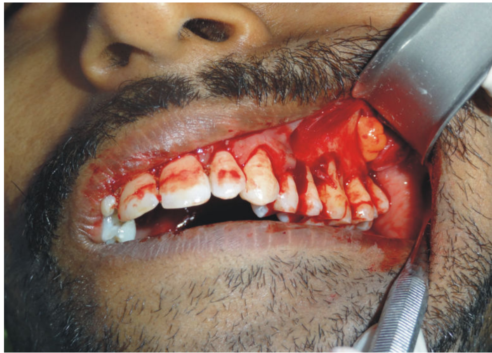

Figure 4: Blunt Dissection

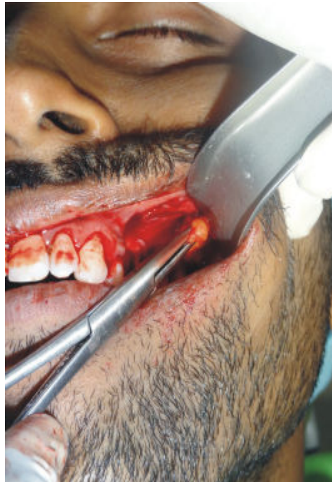

Figure 5: Sutures palced

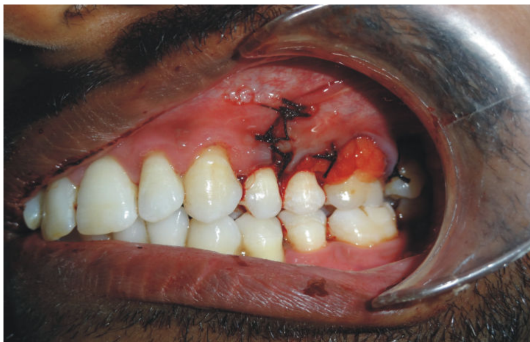

Figure 6: Coe-pak placed

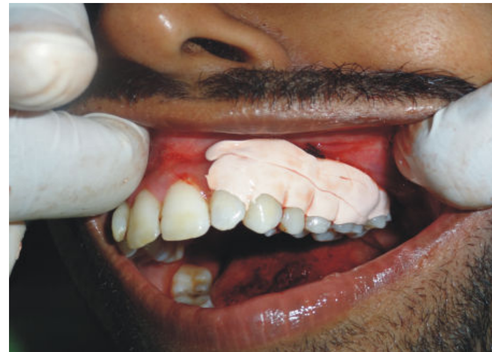

Figure 7: Immediate post-operative

drifting of the tooth but grade I furcation was noted. The Systemic examination revealed no significant abnormality. After one week of phase I therapy including scaling and root planning, the use of pedicled buccal fat pad was planned to cover the tooth root and augment the final width of keratinized gingiva. A local infiltration of 2% lignocaine

Figure 8: After 1 month

was given to the patient in buccal vestibule of the surgical site after presurgical preparations. A 3 cm horizontal incision (blade no.11 and 12) was made through the mucoperiosteal flap at the base of the buccal flap that started distal to the Ist premolar and extended backward above the second molar tooth and allowed access to the PFBP (Fig 2). Two vertical releasing incisions distal to Ist premolar and 2nd molar were also made for easy access to the fat pad (Fig 3). Blunt dissection through the buccinator and loose surrounding fascia to expose PFBP in oral cavity was performed by using artery forcep (Fig 4). The buccal extension of BFP was gently mobilised and pulled towards the Ist molar by blunt dissection taking care not to detach the extension from its delicate capsule. The buccal fat pad flap was secured and placed over the Ist molar and sutured by 3-0 silk (Fig 5). The coe-pak was placed and patient was given prophylactic antibiotics for 5days and strictly instructed for oral hygiene measures using 2% chlorhexidine mouthwash instead of brushing the surgical area for 2 weeks (Fig 6). After 2 weeks of surgery pack and sutures were removed, the healing was uneventful (Fig 7). The buccal fat pad fully cover the recession area with areas of thick and irregular gingival margins with significant gain of 2-3 mm (Fig 8).

Discussion

The buccal fat pad is an encapsulated, well vascularized and specially organized fat tissue that maintains its structure and volume over a long period of time.[11] It is readily available local fat flap for various reconstructive procedures. The main advantages of buccal fat pad are easy to harvest, simplicity, low chances of complications as well as less time consuming surgical technique. The procedure can be performed in one or two incision affecting neither function nor the appearance of the area.[12] This case report showed that buccal fat pad tissue was replaced by keratinized tissue postoperatively and can act as a good alternative for root coverage in future.

Conclusion

Considering, the favourable result of this case report with the advantages offered, buccal fat pad seems to be an appropriate option for root coverage in upper posterior teeth.

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