

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/jpfa

An innovative approach for gingival re-contouring using a provisional restoration and positive pressure – A case report[☆]

Byju Paul Kurian, Manu Johns^{*}, M.T. Hareesh

Annoor Dental College and Hospital, India

ARTICLE INFO

Article history:

Available online 21 February 2015

Keywords:

Gingival aesthetics
Positive pressure
Gingival contouring

ABSTRACT

Increase in awareness among patients about the cosmetic options in dentistry make the clinician to be competent enough to meet the needs of the patients. The appearance of the gingival tissues surrounding the teeth plays a critical role in anterior aesthetics and also gingival perspective is concerned with the soft tissue envelope surrounding the teeth. The gingival texture, shape, tooth to tooth progression and its relation to the extra oral tissues are interdependent on many factors. To improve the contour of gingiva we can have either surgical or nonsurgical approaches like application of pressure. In this case positive pressure was applied on soft tissue in an attempt to create the illusion of the restoration emerging from the tissue and the formation of “pseudo” interdental papillae. This article describes a technique of using a uniquely designed provisional restoration for the application of circumferential pressure for contouring gingiva.

Copyright © 2015, Pierre Fauchard Academy (India Section). Publishing Services by Reed Elsevier India Pvt. Ltd. All rights reserved.

1. Introduction

In today's society, there has been a considerable increase in awareness among patients about the cosmetic options in dentistry. Hence the clinician should be competent enough to meet the needs of the patients.

The dentolabial gingival relationship, which is considered oral aesthetics, has traditionally been where treatment planning is initiated. The appearance of the gingival tissues surrounding the teeth plays a critical role in anterior aesthetics. The gingival perspective is concerned with the soft tissue envelope surrounding the teeth. The gingival texture, shape,

tooth to tooth progression and its relation to the extra oral tissues is interdependent on many factors. These include anatomy of the dentogingival complex, tissue hierarchy, osseous crest considerations, periodontal biotype and biform, tooth morphology, contact points, tooth position and extra-oral skeletal and soft tissue landmarks.¹

Abnormalities in symmetry and contour can significantly affect the harmonious appearance of the natural or prosthetic dentition. Many factors can lead to unhealthy gingival tissue like poor oral hygiene, over contoured margins, violation of biologic width etc. Several authors demonstrated that soft tissue under pontics is associated with clinical signs and

[☆] Presentation at a meeting: Second Prize; Organization: 41st Indian Prosthodontic Society National Conference; Place: Ahmedabad; Date: 13/11/2013.

^{*} Corresponding author. Department of Prosthodontics, Annoor Dental College and Hospital, Muvattupuzha, Kerala 686673, India. Tel.: +91 9916484401.

E-mail address: dmanujohns@gmail.com (M. Johns).

<http://dx.doi.org/10.1016/j.jpfa.2015.01.003>

0970-2199/Copyright © 2015, Pierre Fauchard Academy (India Section). Publishing Services by Reed Elsevier India Pvt. Ltd. All rights reserved.



Fig. 1 – Initial presentation after removal of crown.

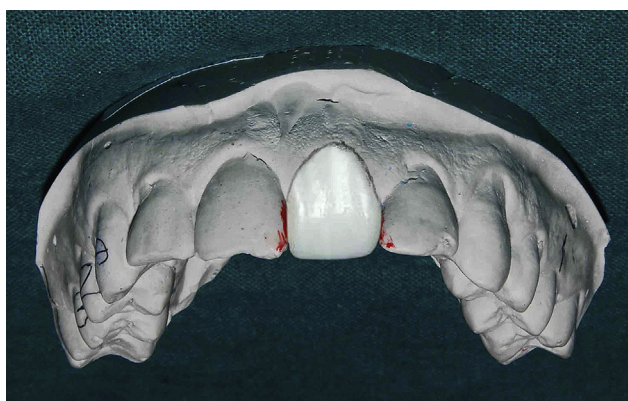


Fig. 2 – Diagnostic mock up to act as a guide to determine the amount of soft tissue management.

symptoms of inflammation such as edema, swelling, and histological changes.²⁻⁴ Contrary to these findings Silness et al⁵ and Tolboe et al reported that clinically healthy conditions can be established at pontic sites if appropriate plaque control is performed.³ Surgical alteration of the shape of a residual ridge or gradual pressure has been valuable management strategies for improving tissue contour.⁶ In the past, some believed that pressure over the residual ridge resulted in inflammation hence slight pressure for the development of appropriate ridge anatomy was contraindicated as a clinical procedure.⁷ In patients with proper oral hygiene and plaque control, well-controlled pressure applied with a convex and highly polished pontic resulted only in thinning of the epithelium and shortening of rete pegs without inflammation.⁸

This article describes a technique of using a uniquely designed provisional restoration for the application of circumferential pressure for contouring gingiva. This pressure causes soft tissue to be displaced in an attempt to create the illusion of the restoration emerging from the tissue and the formation of “pseudo” interdental papillae.

2. Case report

A 23 year-old male patient reported to the Department of Prosthodontics & Crown & Bridge with the chief complaint of mobility of upper left central incisor with metal ceramic crown after a road traffic accident since one week and with history of crown placement 9 years ago. Clinical examination revealed grade II mobility which could be either due to periodontal breakdown or fracture of the restoration. Patient was advised routine radiographic investigation which showed that good bone support but a fracture line at the cervical region of the restoration.

Metal ceramic restoration was sectioned and removed. After the removal of restoration tooth fracture was observed near the gingival level with unaesthetic gingival contour which was due to the growth of interdental papilla into the secondary carious lesion inter proximally at the tooth restoration margins (Fig. 1).

The patient's diagnostic mock up (Fig. 2) were made, studied and an initial treatment plan was suggested. He was given options of extraction of the fractured tooth followed by replacement with tooth supported or implant supported fixed prosthesis. He declined both the options considering the damage to adjacent tooth and economic restraints respectively. Hence an alternative approach which could address his complaints was formulated which was to restore the crown height by preparing a cast post and core and managing the unaesthetic gingival contour by application of positive pressure technique. In the following appointment, series of photographs of facial profile, close-up views of smile were taken. Combining the findings and clinical examination, study of the diagnostic models, photographic analysis, and a complete esthetic evaluation was done and the following observations were noted.

1. Endodontically treated tooth without any Periapical pathology but compromised crown height.
2. Unaesthetic gingival contour.
3. Receded incisive papilla.

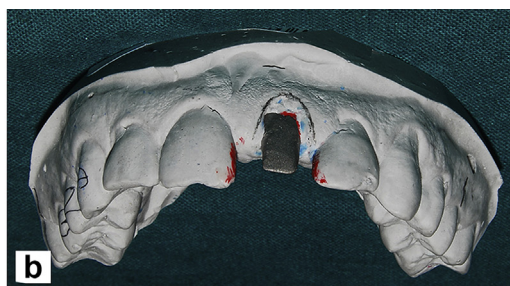
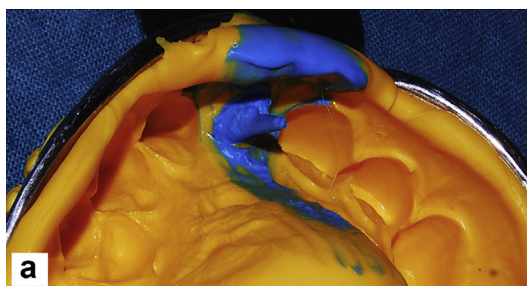


Fig. 3 – (a) Post space impressions; (b) cast post with graphite pencil markings showing the proposed gingival contour.

Download English Version:

<https://daneshyari.com/en/article/3160184>

Download Persian Version:

<https://daneshyari.com/article/3160184>

[Daneshyari.com](https://daneshyari.com)