

A Perio : Restorative Confederacy

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Introduction

If Tooth is the Canvas of a Painting then the Periodontium is the Frame around the Tooth. A painting looks beautiful when the canvas is just right and the frame defines it well.

Just like the painting, both the teeth and the surrounding periodontium should be well balanced in their appearances to be esthetically appealing. Thus signifying the importance of "Interdisciplinary Dentistry".

Fracture of the anterior teeth with loss of tooth structure can be very unaesthetic in appearance. Similarly excessive melanin pigmentation of the gingiva can reduce esthetics drastically. Also spacing between teeth and midline diastema contribute to the unaesthetic appearance.

Most of these problems can be well corrected by an Interdisciplinary approach. Using periodontics to remove the excessive melanin pigments, restorative dentistry to restore the lost tooth structure and orthodontics for proper teeth alignment, we as dentists can definitely help the patient in achieving an esthetic smile and a pleasing appearance.

We would like to share one such case that we performed using periodontics and restorative dentistry, as a step forward towards achieving pleasing esthetics for the patient in a short duration.

Case Report

A 27 year old male patient, Mr Rajan Palani reported to the Department Of Periodontology, Dr. D.Y. Patil Dental College and hospital, Nerul, Navi Mumbai, with a chief complaint of gums appearing black and correction of broken front two teeth in the upper jaw. The patient did not want correction of generalized spacing seen

On evaluation it was found that the patient had no adverse medical or familial history. The patient had an oval face and was darkish in complexion.

On intraoral examination it was noted that the patient had generalized diffuse melanin pigmentation in both maxillary and mandibular regions of oral cavity. It was a dark brown discoloration seen as a continuous patch. As per Tanaka et al (2006) classification the pigmentation score was 2 and the cause could be related to racial pattern.

The patient also presented with a fracture of 11 & 21. The fracture as classified by ellis Class II fracture. It was involving the mesial line angle of 11 and 21 extending from the middle one third to the incisal edge. No discoloration, pain or sensitivity was noted. Vitality test was positive

Patient had an Angle's class I malocclusion with spacing and showed

flaring of anterior maxillary teeth.

Radiographic Investigation

No pupal involvement and no associated periapical pathologies in relation to 11 & 21 were noted.

Diagnosis

Generalized diffuse melanin pigmentation with Ellis Class IV fracture of 11 & 21.



Pre-Operative Photographs

Treatment Plan

An interdisciplinary approach was planned for the patient.

Preliminary Phase

- No emergency treatment was required

Non-Surgical (Phase I Therapy)

- Scaling for removal of calculus
- Patient was educated and motivated to use correct oral hygiene measures.

Re evaluation of Response to Phase I

- Plaque calculus and patients maintenance of oral hygiene were evaluated.

Surgical Phase (Phase II Therapy)

- Surgical removal of gingival pigmentation was undertaken.
 - The procedure was done arch wise, starting with the maxillary arch.
 - Scalpel and Blade technique was used.
 - Patient was given local anesthetic infiltration with a solution of 2% lignocaine HCL and 1:80000 adrenaline.
 - A 15 no. BP blade was used.
 - Using a split thickness flap involving the epithelium and some amount of connective tissue, the pigments in the attached and marginal gingival were removed.
 - A part of the connective tissue and the periosteum was retained back.
 - An ile curette was use to remove pigments from the papillary area.
 - In both the arches the procedure was carried out from the midline upto distal of first premolars.
 - A periodontal pack was placed on the surgical area.
 - Patient was recalled after 7 days.
 - Same procedure was repeated for the mandibular arch after 7 days.



Mid surgical phase after finishing the maxillary arch depigmentation and before proceeding with the mandibular arch

Re evaluation of Response to Phase II

- After 7 days the pack was removed.
- The surgical area was debrided and irrigated with Betadine solution.

Restorative Phase (Phase III)

- Restoration of fractured crown structure with composites was taken up.
 - Prior to the preparation the desirable tooth shade was selected.
 - Chamfer/Bevel design.
 - I mm long chamfer was prepared to half the depth of the enamel on the labial and lingual surface.
 - Stair stepping of the labial enamel with a good chamfer cavo-surface margin into the tooth anatomy was prepared.
 - Enamel conditioning.
 - The preparation was cleaned of all debris
 - The adjacent teeth were protected with Mylar strip.
 - Acid etching of prepared teeth was done with 37% phosphoric acid, 20secs for enamel and 10 secs for dentin for the involved teeth, followed by thorough rinsing for 5 secs.
 - Composite placement.
 - The tooth was dried and isolated
 - Bonding agent was applied and light cured as per manufacturer's instructions.
 - Composite resin material of the desired shade was placed in small increments of 1mm thickness and contoured to achieve the favorable tooth anatomy.
 - Finishing and polishing.
 - Excess of flash was removed with a no.15 B.P blade.
 - Fine diamonds were used for gross reduction along with a lubricant
 - Rubber composite finishing cups and flexible discs were used for the final finish.



Post-Restorative Procedure and 1 Week Post-Periodontal Surgery

Maintenance Phase

- Patient was re evaluated after 1 month of the treatment.
- Patient classified as Merin’s Class A.
- He would be evaluated every 3 to 4 months within first year of treatment.
- After 1yr patient would be evaluated every 6 months.



One Month Re-Evaluation

Discussion

It is well said that “Beauty lies in the eye of the Beholder”. Esthetics has a very personal perception to it. An operator alone cannot define esthetics for his patients; a patient’s view point is a must. Yes, we as dentists can definitely help the patient by suggesting various treatment modalities but ultimately we have to govern our treatment procedures as per patient’s ideologies and perception about his appearances.

In the above mentioned case report, ideally doing a depigmentation procedure would have been contraindicated as it would create a discrepancy between the color of the patient's face, and lips and gingiva. The patient was informed about the consequence, however he chose to go ahead with the procedure. Also the patient was advised to undergo an orthodontic treatment for correction of midline diastema and spaces between his teeth, but the patient desired something that could be done in a short span of time as he was getting married in a month's time and requested to postpone the orthodontic treatment for some time.

Thus considering all the subjective restrictions, we designed the above treatment plan involving Periodontics and Restorative Dentistry and with the help of which, we have been successful in restoring a part of esthetics for the patient. Patient was well satisfied and contented.

We successfully achieved esthetics as desired by our patient. but to achieve esthetics as defined by a clinician to achieve perfection, we still have a few milestones left.

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Celebration National Dentist Day with the Theme of Anti-Quackery

In India, National dentist day is been celebrated on 6th March 2013.

On this occasion Post Graduates Students Along With Interns Posted In Department of Public Health Dentistry, Teerthanker Mahaveer Dental College & Research Centre, Moradabad celebrated in a different manner.

They performed a street play on Moradabad bus depot having the theme of “Anti Quackery” and also organized free diagnosis camp.

Through the street play they passed the message to the people that they should not visit and take treatment from unregistered dentist as well as quacks as treatment taken from them will lead to hazardous effect.

The street play was viewed by 300 people approximately and around 200 people were diagnosed. Along with this Oral health education tips were also been explained to the crowd.

The street play was done under the guidance of Head of Dept., Dr. D.J.Bhaskar.

Also it was attended by staff members Dr.Himanshu Punia, Dr. Vipul Gupta.

The street play was organized by Dr. Swapnil Bumb (PG-1ST YEAR). The play was scripted by Dr. Safalya Kadtane (PG-1ST YEAR), Ashish Gupta (Intern) & Prateek Jain (intern).

The team of total 25 dentist including staff members, Post graduate students and intern made the event a successful one.

