

Mini Solution To Many Problems Magnetise Your Personality By Illusion of Reality : A Case Report

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Abstract

One of the most challenging tasks of modern restorative dentistry is resolving the dilemma of spaces between anterior teeth. Treatment planning to correct a diastema may include orthodontics, restorative dentistry, or a combination of several therapies. Although direct bonding, porcelain laminate are generally preferred but there are certain situations for which porcelain fused to metal crowns will be the technique of choice. A 24 year old patient female reported to the Department of Prosthodontics. A review of her dental examination revealed that the patient had a history of trauma in relation to her maxillary right central incisor Ellis class III fracture. Further examination revealed that the patient had a midline diastema. Since the trauma occurred many years back there was misalignment of the central incisor.

Key Words: Mid line diastema, post and core, porcelain fused to metal bridge.

Introduction

One of the most challenging tasks of modern restorative dentistry is resolving the dilemma of spaces between anterior teeth. The presence of a diastema can be a problem because the esthetic value of anterior spacing varies between cultures, and the best treatment options are often rejected. Treatment planning to correct a diastema may include orthodontics, restorative dentistry, or a combination of several therapies. Like most esthetic problems, the treatment of a diastema requires a careful analysis. Diagnostic casts, radiographs, and photographs or digital imaging are necessary to thoroughly evaluate a diastema. Photographs of the results of treatment on other patients can be also used to help the patients' current envision, the possibilities associated with their own treatment and inspire confidence in the dentist's abilities. Conservative restorative dentistry is always the goal in treating esthetic problems, and the fractured tooth is no exception.

Although direct bonding, porcelain laminate are generally preferred but there are certain situations for which porcelain fused to metal crowns will be the technique

of choice.

Endodontically treated teeth should have a good prognosis. It should resume full function to serve as an abutment. Two factors which influence the choice of technique to restore the tooth

- 1) The type of tooth
- 2) The amount of remaining coronal tooth structure.

Case Report

A 24 year old patient female reported to the Department of Prosthodontics, Institute of Dental Sciences Bareilly, Uttar Pradesh India. A review of her dental examination revealed that the patient had a history of trauma in relation to her maxillary right central incisor Ellis class III fracture. Further examination revealed that the patient had a midline diastema. Since the trauma occurred many years back there was malalignment of the central incisor. (Fig. 1)

Clinical Procedure

Radiographic interpretation revealed that the patient had Ellis Class III fracture for which the tooth had been endodontically treated. (Fig. 2)

Impressions of both the arches were made with an irreversible hydrocolloid (Zelgan India) which were poured in type II dental stone (Dentsone India)

Since the traumatic time had been very long, so the mesial rotation of tooth no. 11 had resulted followed by formation of huge midline diastema which was very difficult to restore simply with crown. Thus the treatment plan was framed taking both the things into consideration that is, remaining tooth structure of tooth no. 11 and size of mid line diastema. This treatment plan includes restoration of 11 with post and core and bridge for 11 and 21 having the pontic occupying the space of diastema.

Determination of the post space was done and the post space was created with the help of the radiographic examination of the tooth.

Prefabricated post was inserted in the created post space and core build up was done with the composite. (Fig. 3)

Incisal view of the restoration revealed the amount of gap between the central incisors and the changed axis of both the teeth. (Fig. 4)

Composite build up of the maxillary central incisor was done with shade composite (A2) in order to provide some strength to the tooth for the crown preparation. (Fig. 5)

- Now the preparation of the 3 unit bridge for 21 was done.
- An elastomeric impression was made and cast was poured with die stone (KALROCK kalabhai co. pune).
- The axis of the tooth was changed with the preparation in order to have a single path of insertion of the prosthesis. (Fig. 6)
- Temporary crowns were cemented on the prepared teeth with non-eugenol temporary cement as the core was of composite.
- A temporary partial denture was given in order to check for the esthetics and acceptance of the patient. (Fig. 7)
- Temporization of the three unit bridge was done
- Wax patterns were fabricated and metal coping was made.
- After taking the coping trial, complete porcelain fused to metal bridge was fabricated.
- Finally the bridge was cemented with resin cement.

Patient was recalled after 1 month, 4 months, 6 months for the follow up of the treatment. (Fig. 8)

Discussion

An improper bite can predispose and/or directly cause malfunction of the temporomandibular joint. Therefore the face bow transfer was done in order to articulate the upper cast and then articulation was completed with lower cast in maximum intercuspation position. In order to know the condylar guidance, so as to prevent the lateral and protrusive interferences, the protrusive bite registration was done with the help of bite registration paste. (Jet bite, 3M Co.). Vertical dimension was evaluated to be normal due to the presence of intact posterior teeth.

Conclusion

When the diastema was closed with the fixed partial denture, the primary objective was to create the teeth that do not appear too

wide. The facial line angles were moved toward the midline, thus giving the illusion of narrowness.

The two significant advantages of full-coverage crowns over other restorations at the present include increased fracture resistance to the forces of mastication and the ability to achieve maximum esthetics because the contours of the entire tooth can be easily controlled. When a restoration is indicated for diastema closure, the most conservative type should always be used as long as the result will provide a durable and esthetic result.

Regardless of the treatment choice, the objective is to improve esthetics while

preserving as much healthy tooth structure as possible. Good occlusion and maintenance of the supporting tissues are equally important to prevent diastema reformation and failure of corrective therapies

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Legends

- Fig. 1: Ellis Class 3 # on tooth 11
- Fig. 2: Radiographic view
- Fig. 3: Post space determination
- Fig. 4: Incisal view
- Fig. 5: Frontal view
- Fig. 6: Single path of insertion
- Fig. 7: Temporization
- Fig. 8: Post operative view

