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Preface

Fdi Continuing Dental Education is an international forum for worldwide dentists to gather, share and exchange the latest science in dentistry. The speaker in this forum will present the update information in dental science.

For Indonesian Dental Association, this Fdi Continuing Dental Education is an excellence program in developing dental science. Therefore, this program has become our priority and need especially for dentist to develop and increase our knowledge.

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ABSTRAK


Kata kunci: estetika kompleks, perawatan interdisipliner, periodonsia, konservasi gigi

ABSTRACT

Background: Esthetics complex is a problem that involves esthetic of tooth and its supporting tissues and can cause other changes and impaired function. Esthetics complex treatment involves several specialties action that can achieve maximum results, complex treatment involves several specialties action that can achieve maximum results, complex treatment involves several specialties action that can achieve maximum results, complex treatment involves several specialties action that can achieve maximum results, complex treatment involves several specialties action that can achieve maximum results, complex treatment involves several specialties action that can achieve maximum results, complex treatment involves several specialties action that can achieve maximum results, complex treatment involves several specialties action that can achieve maximum results, complex treatment involves several specialties action that can achieve maximum results. Objective: The aims collaboration with Dental Conservative to maintain the existing teeth. Objective: The aims collaboration with Dental Conservative to maintain the existing teeth. Objective: The aims collaboration with Dental Conservative to maintain the existing teeth. Objective: The aims collaboration with Dental Conservative to maintain the existing teeth.
and masticatory function for the patient. **Case report:** A man, 22-year-old complained about the state of the gums and teeth that look unestheticually. Patient experienced fractures in the maxillary incisors by accident. When it comes patients using removable partial dentures with the rest of the fractured tooth. **Management:** Esthetics complex treatments carried out cooperation between Conservative Dentistry specialist to perform root canal treatment and manufacture of pegs core and the permanent crown with Periodontist to perform mucogingival surgery, gingivectomy, crown lengthening, interdental papilla reconstruction and recession coverage. **Conclusion:** Interdisciplinary treatment between Conservative Dentistry with Periodontist for esthetics complex treatment gives satisfactory results esthetically and functionally in patients.

**Keywords:** esthetics complex, interdisciplinary treatment, periodontology, dental conservative

**INTRODUCTION**

Esthetics complex is a problem that involves esthetic of tooth and its supporting tissues and can cause other changes and impaired function. Esthetics complex treatment involves several specialties action that can achieve maximum results. For example, Periodontology to maintain and care for the supporting tissues of the teeth in collaboration with Dental Conservative to maintain the existing teeth.

A short clinical crown is defined as any tooth with less than 2 mm of sound, opposing parallel walls remaining after occlusal and axial reduction. The common causes of short clinical crown include dental caries, erosion, tooth malformation, attrition, excessive tooth reduction, eruption disharmony, exostosis, genetic variation, amelogenesis imperfect, gummy smile, and fracture or traumatic dental injuries.

Traumatic dental injuries cause damage ranging from minimal enamel loss to complex fractures involving pulpotissue. Treatment of fractured teeth depends on the level of the fracture line and the amount of remaining tooth. Conventional approaches to rehabilitating fractured anterior teeth include composite restorations and post-core-supported prosthetic restorations.

The postendodontic treatment of teeth presents the dental practitioner with the dilemma of selecting from a large array of materials, techniques, and designs. Even the basic underlying scientific principles of post and core technology are fraught with confusion. In addition, increasingly sophisticated dental materials are constantly being introduced, serving to alter not only the procedures, but the very paradigms of treatment.

Crown-root fractures extend below the cementoenamel junction and require a multidisciplinary treatment approach. If pulpal exposure is extensive in permanent anterior teeth with complete root development, the fractured segment is usually removed and post-core and crown restoration is done after root canal therapy. Furthermore, patients often wish to recover their smile as soon as possible and maintain it throughout subsequent treatment.
The fracture fragment has been proposed as a favorable crown repair material due to its superior morphology, conservation of structure, and patient acceptance. In addition, use of such fragments can create an environment conducive to periodontal healing. Rehabilitation of the fractured central incisor was accomplished by post-core-supported prosthetic restoration. Recently, the scope of esthetic rehabilitation was limited to a close replication of tooth structure on a healthy periodontal foundation.

Periodontal aspects that must be considered in the restoration of teeth after endodontic treatment are, ultimate prognosis for a given tooth depends on periodontal status, treatment of periodontal diseases is paramount prior to placement of definitive restoration, extensive coronal destruction may require crown lengthening (re-establish biological width and provide coronal tooth structure to incorporate ferrule into cast restoration)."P"

Periodontal surgery to extend the clinical crown apically, namely by crown lengthening, is the most frequently used and valuable periodontal surgical procedure related to restorative treatment. In the presence of periodontal disease, subgingival caries, or missing teeth, extending the crown length by means of periodontal tissue resection can improve maintenance, restorative prognosis, occlusal harmony, and esthetics (Sato).

In crown lengthening, there are two methods, coronal extension and apical extension. Apical extension of the crown is achieved by surgery such as gingivectomy and apically positioned flap surgery with and without osseous resection (Sato). The aims of interdisciplinary treatment is to achieving optimal esthetic conditions and improve speech and masticatory function for the patient.

CASE REPORT

A man, 22-year-old complained about the state of the gums and teeth that look aesthetically since the accident and caused four upper teeth broken. The patient's general health condition is good. When he came, he was using removable partial dentures. Clinical examination, it seen fracture maxillary at four incisor crown because of an accident. Gingiva around the teeth 12, 11, 21 and 22 looks inflamed. Patient's occlusions is Class III Angle with a value over and over jet bite can not be determined because there is no inter-relations of the anterior maxilla and mandible.

Analysis of aesthetic patients had smile lines that tend to be more to the apical, anterior cervical above the upper lip (Figure 1). Gingival zenith in the teeth 13, 12, 11, 21, 22 and 23 are not in balance and aesthetic. Axis of teeth 13 and 23 are also not balanced and not parallel (Figure 2).

The treatment plan in these patients did step by step and carried out by two areas of specialization is the field Periodontology to prepare the supporting tissue and the field of Dental Conservation to preserve the rest of the existing teeth (Figure 3). The first phase of treatment is scaling and root planing, and root canal treatment at teeth 12, 11, 21 and 22, then carried deep post and core -making.
The second phase is mucogingival surgery, gingivectomy on the vestibular and palatal at 12, 11, 21 and 22 as well as gingivoplasty interdental 13-23 on the palatal and vestibular. At this stage it is also done with the interdental papilla reconstruction microsurgery and suturing using absorbable blue nylon thread size 6.0, as well as the placement of temporary crowns on teeth 12, 11, 21 and 22 (Figure 4). Patients are given antibiotics, analgesics and anti-inflammatory after surgery.
Control day 10 post-surgical carried off the periodontal dressing, there are signs of inflammation in the area of operation. Patients were instructed to maintain a healthy mouth and his teeth. Control day 21 and 30 had no visible signs of inflammation and gingival assessed stable and can be printing. Do the printing area of the teeth 12, 11, 21 and 22 for the manufacture of veneer crown. The 40th day is done installing crowns, teeth 12, 11, 21 and 22 to position edge to edge as the most optimal option.

DISCUSSION

An accurate diagnostic and interdisciplinary approach is necessary for obtaining improved, conservative and predictableresults in esthetically compromised areas, like the antemolar dental arch. Periodontal health is of paramount importance for all teeth, both sound and restored. Thus, this procedure, as an adjunct to a restorative treatment, can produce predictable results while ensuring good esthetics and maintaining periodontal health.

Achieving and maintaining satisfactory treatment results for a traumatically fractured incisor is challenging for clinicians. Esthetic and functional outcomes must be considered when determining the proper treatment method. Treatment modalities for crown-root fractured teeth can change depending on the level of the fracture line and the amount of remaining root.

In this case, fractures involving the cervical area of the teeth and the length of the clinical crown of the teeth is very short, the condition is an indication of the lifting of post trauma. Patients do not want to do extractions, besides from the radiograph looks the tooth root is long and capable of supporting the teeth after restoration. Root canal treatment done to support the restoration. In the case, gingival zenith maxillary anterior teeth is not balanced and the axis are not aligned, thereby disrupting the aesthetic patient. To improve these conditions need to do gingivectomy procedure.

After the crown lengthening procedure, the permanent cementation of crowns made at least begin 6-8 weeks, it aims to reduce the likelihood of gingival recession after crown insertion. Temporary crown should be used 2-3 after surgery, when the gingiva has healed and stable.

Esthetics complex treatments carried out cooperation between Conservative Dentistry specialist to perform root canal treatment and manufacture of pegs core and the permanent crown with Periodontist to perform mucogingival surgery, gingivectomy, crown lengthening, interdental papilla reconstruction and recession coverage.

Conventional approaches to rehabilitating fractured anterior teeth include composite restorations and post-core-supported prosthetic restorations. Recently, it has become possible to use reattachment technique to preserve the fractured segment of a tooth, which offers better short-term and medium-term results as compared with resin composite restorations.

To maintain healthy periodontal tissue, the attached gingiva and biological width must be considered. Biological width is measured from the bottom of the gingival sulcus to alveolar crese and is maintained by homeostasis.
Average biologic width consists of the epithelial attachment (0.97 mm) plus connective tissue attachment (1.07 mm). This gives an average value of 2.04 mm. When this biologic width is violated by a restoration as a defense mechanism, inflammatory response accelerates bone loss to provide space for new connective tissue attachment, which results in increased pocket depth. Therefore, impingement of a restoration on the biologic width will trigger loss of bone, connective tissue, and epithelial attachment.

Patients that require aesthetic crown lengthening however, frequently exhibit a high smile line. As a result, pressure is often placed on the restorative dentist to correct esthetic deficiencies as early as possible and maintain certain esthetic standards.

KESIMPULAN

Interdisciplinary treatment between Conservative Dentistry with Periodontist for esthetics complex treatment gives satisfactory results esthetically and functionally in patients.

REFERENCES

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