International Journal Dental and Medical Sciences Research
Volume 2, Issue 6, pp 336-342 www.ijdmsrjournal.com ISSN: 2582-6018

Full Mouth Rehabilitation of a Patient with a Mutilated Dentition Using Fixed and Removable Treatment Modalities

Date of Submission: 05-12-2020 Date of Acceptance: 20-12-2020

ABSTRACT: The severe wear of anterior teeth facilitates the loss of anterior guidance, which protects the posterior teeth from wear during excursive movements. The collapse of posterior teeth also results in changes of the occlusal plane and in the reduction of the vertical dimension. This case report describes 45-year-old female patient, who had severe wear of her dentition, and the reduction of the vertical dimension.In order to restore the vertical dimension of the patient, the patient was given a removable temporary partial denture at the restored vertical for a period of 2 months. After the patient had adjusted to the new vertical a definitive treatment plan was implemented.Once the patient had adjusted to the new vertical dimension with the interim restoration, the permanent reconstruction was fabricated. This case reports that a satisfactory clinical result can be achieved in patients with wear after restoring the vertical dimension.A significant improvement in esthetics and function can also be accomplished by the following.

I. INTRODUCTION

The goal of dentistry is to increase the life span of the functioning dentition, just as the goal of medicine is to increase the life span of the functioning individual. In striving to achieve its goal, dentists use their knowledge, skill, and all the available resources in both maintenance work and rehabilitation. For such a view, emphasis on scientific principles rather than on technical skills is of paramount importance.In manysituations,it is essential to follow a multidisciplinary approach, andthe success greatly depends on the etiology, diagnosis, andapplied scientific approach in rehabilitation.This article discusses full mouth rehabilitation in terms of restoration of form, function and esthetics, it seeks to evaluate mouth rehabilitation procedures by the criterion of how well they fulfil this aim.

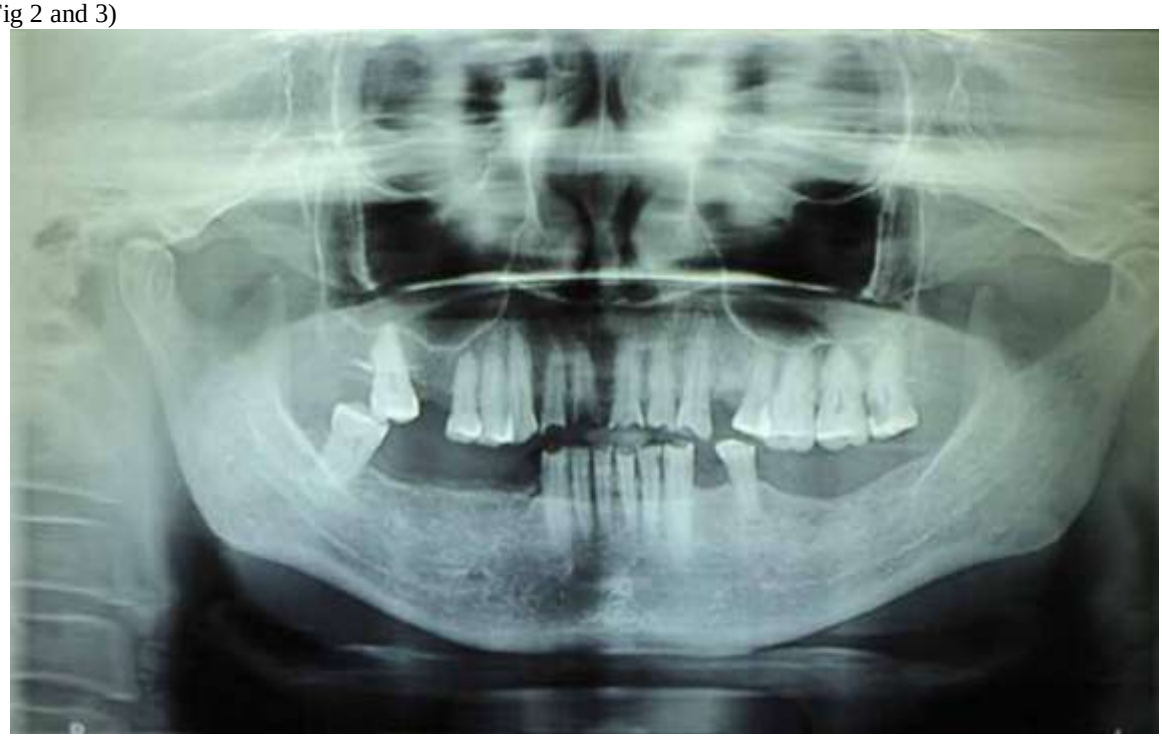
II. CASE REPORT

A45 year old patient reported to the Department of Prosthodontics, D.Y. Patil University, School of Dentistry, Nerul, Navi Mumbai, with a chief complain of a worn out dentition and missing teeth for which she desired treatment. On examination it was revealed that the patient suffered from generalised attrition in all the existing teeth and had missing mandibular posteriors in both quadrants. According to Turner's Classification, the patient fell into category 1, and the vertical had to be restored by 3mm with the help of a lucia jig. Turner and Missirilianclassificationthat aids in restoring vertical dimension iscommonly followed among the peersbecause of simplicityin application. (Fig 1).

(**Fig 1** - Extra-oral Frontal View of the Patient)

International Journal Dental and Medical Sciences Research
Volume 2, Issue 6, pp 336-342 www.ijdmsrjournal.com ISSN: 2582-6018

A pre-operative OPG was taken of the patient along with Pre-operative photographs of the worn-out dentition (Fig 2 and 3)



(**Fig 2 –** Preoperative OPG of the Patient)

(Fig 3 –Preoperative Smile and Frontal View)

With the aid of a lucia jig, the vertical dimension as restored and a diagnostic wax-up was made at the restored vertical which gave us an indication about the available restorative space, the teeth that would require endodontic as well as periodontic intervention and served as patient information aid to explain the treatment (Fig 4). After discussing various treatment options which included implant placement in the edentulous areas cast partial therapy as well as using a regular acrylic denture.It was decided to crown all the existing teeth and to use precision attachments with a cast partial denture for the rehabilitation of the mandibular posteriors. As per the diagnostic wax up an interim prosthesis was fabricated and was delivered to the patient. She was asked to use this temporary restoration for a period of 2 months. She was recalled regularly over the 2 months to make any occlusal adjustments and to verify for esthetics as well as comfort before moving forward with the definitive treatment.

International Journal Dental and Medical Sciences Research
Volume 2, Issue 6, pp 336-342 www.ijdmsrjournal.com ISSN: 2582-6018

Fig 4 (Interim prosthesis made using a diagnostic waxup)

Endodontic Treatment was conducted for all the existing teeth because of the heavy attrition that is seen on OPG as well,followed by a crown lengthening procedure in order to improve the crown root ratio in order to improve the retention form of the final crowns that would be cemented. The teeth were then prepared to receive zirconia restorations in the maxillary arch and ceramometal restorations with attachments in the mandible. Gingivalretraction was performed using single strand knitted impregnated cord and final impressions were made of both the maxillary and mandibular arches using double stage impression technique with addition silicone material puttyand light body consistencies. A bite was recorded at the restored verticalwith the help of mandibular wax occlusal rims as well as anterior temporaries which acted as a vertical stop. (Fig 5 and 6).

(Fig 5 – Tooth Preparations done)

Following the impression procedurea coping trial of the maxilla and metal trial of the mandibular anteriors was done of all the teeth that were to be crowned was done, followed by a bisque trial (Fig 7)

International Journal Dental and Medical Sciences Research
Volume 2, Issue 6, pp 336-342 www.ijdmsrjournal.com ISSN: 2582-6018

(**Fig 7** – Metal Trial)

(Fig 8 – Bisque Trial)

During the bisque trial, we checked for any occlusal discrepancies and occlusal equilibriation was done. The final crowns were fabricated and cemented in the patients' mouth with Resin modified GIC cement.

(Fig 9 – Final Crown Placement)

International Journal Dental and Medical Sciences Research
Volume 2, Issue 6, pp 336-342 www.ijdmsrjournal.com ISSN: 2582-6018

In order to implement this, a functional impression was made of the edentulous area, this was followed by a framework trial, teeth arrangement and ultimately acrylisation of the final prosthesis.

(Fig 10 - Wax Try-In for Posterior mandible)

(Fig 11 – Intaglio Surface of the Denture)

International Journal Dental and Medical Sciences Research
Volume 2, Issue 6, pp 336-342 www.ijdmsrjournal.com ISSN: 2582-6018

(Fig 12 – Final occlusion)

The patient was put on a 6 monthly follow up protocol, to evaluate the existing dentition and for oral prophylaxis to maintain good oral hygiene standards.

(Fig 13 – 6 Month Follow up showing good maintenance of oral hygiene)

(Fig 14 – Extra- oral Frontal View)

III. CONCLUSION

Full mouth rehabilitation (FMR) is an individualizedtreatment where the entire dentition is reconstructed andrestored to optimize the health of teeth, gingiva, occlusion,and stomatognathic system. The rehabilitation shouldestablish thefunction, the esthetics, and more importantlythe biological efficiency of the stomatognathic structures. It is preferable to obtain consensus on FMRprocedure that can aid in obtaining greater quality of life topatients.By following an organized protocol, we can ensure the highest quality treatment for our patients.

REFERENCES

[1]. Tiwari B, Ladha K, Lalit A, Dwarakananda Naik B. Occlusal conceptsin full mouth rehabilitation: An overview.Indian Prosthodont Soc2014;14:344-51.
[2]. Irving G, D.D.S. The goal of full mouth rehabilitation J.Pros.Den, 1952;2 :246-251.
[3]. Turner KA, Missirlian DM. Restoration of the extremely worndentition. J Prosthet Dent 1984;52:467-74.
[4]. Chander NG. Deciphering the opinions in full mouthrehabilitation. J Indian Prosthodont Soc 2020; 20:225-7.
[5]. Wiskott HW, Belser UC. A rationale for a simplified occlusal design inrestorative dentistry: Historical review and clinical guidelines. J ProsthetDent 1995;73:169-83.