

From Extinct To Life For Conventional Cast Partial Denture: A Case Report

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Abstract: Nowadays, implants are commonly used as a treatment option in partially edentulous conditions than any other treatment options. However, there are cases where removable prosthesis are used to treat them due to financial, anatomic, psychological, or medical considerations of the patient. This article describes a case report in which conventional cast partial denture is used as a treatment option. This article might promote the use of cast partial denture in dental practice which are becoming extinct and also to incorporate simple design to the framework to reduce the bulk of the framework and to aid in maintaining oral hygiene.

Key Words : Cast Partial, Masticatory, Removable Partial Denture, Partially Edentulous, Designing

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I. Introduction

Restoration of partially edentulous arches should improve the aesthetic and masticatory function of the patient¹. Partial dentures may not contribute greatly to mastication as masticatory efficiency of the fixed partial dentures. However, there are situations, when financial, systemic or local conditions preclude the use of fixed Prosthodontics.^{2,3} A well-designed removable partial denture can be an excellent treatment alternative to fixed prosthesis and implants^{4,5}. This case report of a cast partial denture designed for partially edentulous mandibular arch in which it is design without compromising the principles of RPD designing.

II. Case Report

Patient of aged 56 years, female came to PD Dental Health Care And Research Centre, Canchipur, Manipur with a chief complaint of her missing teeth in lower jaw and demanded a restoration which improves the appearance and masticatory efficiency. On clinical examination, the patient exhibited satisfactory oral hygiene and with missing teeth in mandibular arch (Figure 1). Diagnostic casts made (and mounted in the semi adjustable articulator and were analyzed and surveyed. After evaluating design of framework, RPI system were planned. Mock up mouth preparations were done on the diagnostic models and then on the teeth intraorally. Impressions were made with putty and monophasic polyvinyl siloxane impression material (Aquasil Lv Ultra, Smart Wetting Impression Material, Dentsply, Detrey GmbH, Konstanz, Germany). The casts were poured in die stone. After surveying master cast block of the undercuts were done and refractory casts were made using phosphate bonded investment material. Wax pattern were contoured (Figure 2) and then casting procedure was carried out. The casted framework was finished and polished and then tried in the patients' mouth. The occlusal rim was made (Figure 3) and teeth setting was done and Try in was done (Figure 4). Denture processing was done. Denture were finally checked in patients mouth and after proper evaluation, it was delivered to the patient (Figure 5). One year follow-up, the patient reported superior masticatory efficiency and better evidence of facial profile

III. Discussion

Numerous treatment options exist to restore the partially edentulous mouth. Depending on patient's diagnostic factors and a patient's perspective, best treatment plan should be selected for the patient. Cast removable partial are an effective and affordable treatment modality to restore function and aesthetics. The procedure explained above is an innovative way of restoration of partially edentulous arches with increased masticatory efficiency and appearance and strengthens the denture due to the metal framework. Percentage of patients comply with treatment can be increased to certain extent if the design is well planned and complicated design are avoided.

IV. Conclusion

Using cast partial denture in the treatment of partially edentulous patient is a simple and effective treatment plan for providing an optimum treatment for an partially edentulous individual. Thus we dentist should promote the use of cast partial denture which are nearly going to extinct back to life. Thus it is role of the dentist to Properly design to aids in increases the patient's acceptance to the treatment .

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LEGENDS:



Figure 1: Preoperative



Figure 2: Wax Pattern



Figure 3: Occlusal rim



Figure 4 :Try In



Figure 5: Postoperative View

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