www.jmscr.igmpublication.org Impact Factor 3.79
ISSN (e)-2347-176x

IGM Publication Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Apprehensions Associated With Wearing of Cast Partial Denture

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Abstract

Cast partial denture being a removable prosthesis does not enjoy being a high priority treatment option for many of partially edentulous patients. A well-constructed partial denture that incorporates sound principles of a removable partial denture can serve far better than a fixed prosthesis in already compromised partial edentulous situation. Patients who have to wear more than one partial denture require overcoming their apprehension before such prosthesis are worn by them. This article is a representation of one such case of a partial edentulous situation whose apprehension levels before treatment began were high, but were successfully managed during the course of treatment.

Keywords- *judgement, patient motivation, partial edentulism, cast metal, removable prosthesis*

Introduction

Many treatment procedures in the past have often been dreaded by the patients because of the associated mortality or source of pain due to which patient develops a certain degree of fear, anxiety or apprehension towards such procedures. In dentistry most of these apprehensions are associated right from childhood, especially with the fact that one needs to inject a syringe inside the mouth. However, there are many treatment procedures and treatment options where the patient's apprehension is not associated with fear of pain.[1, 2] Apprehensions that are encountered by the prosthodontist are associated with removable dentures.

Patient's apprehensions revolve mainly around the property of it being a removable prosthesis. Patient

fears that the prosthesis may come out while talking, smiling or eating or they could even swallow it. Other apprehensions like a constant source of irritation to the tongue, increased bulk, gagging, plaque collection and lastly the effect on phonetics.[3-5] The level of apprehension may increase or decrease with local or environmental factors. Previous experience of self or other individual, existing lacunae in the dental prosthesis or poor education and motivation by the dentist are some of the factors that can be overcome by the patient and should be recognized by the dentist. [6,7] This case report is a representation of apprehensions of a patient who was extremely reluctant to wear a removable partial denture but with patience and strategic planning, patient's apprehensions were reduced and a successful prosthetic rehabilitation with cast partial removable denture was done.

Clinical Case Report

An adult male patient aged 43 years, was referred to the department of Prosthodontics by the department of oral diagnosis of the University with chief complaint of inability to masticate since the loss of his maxillary and mandibular posterior teeth on both sides. Medical history revealed that the patient was hypertensive and was taking medicines regularly as advised. Dental history recorded a loss of mandibular right sided posteriors followed by left side later to be followed by extraction of maxillary posteriors mainly due to caries. Social, drug and history of habits was not significant. Patients' lack of seeking treatment was due to the myths and taboos associated with the use and wear of a removable partial denture which were inherited through the experiences of others. Extra oral functional examination disclosed a high lip line (smiling line). Intra oral examination revealed a Kennedy class 1 modification 1 situation in both maxillary and mandibular arches (Fig 1A and B). Wear facets in relation to posterior teeth were present

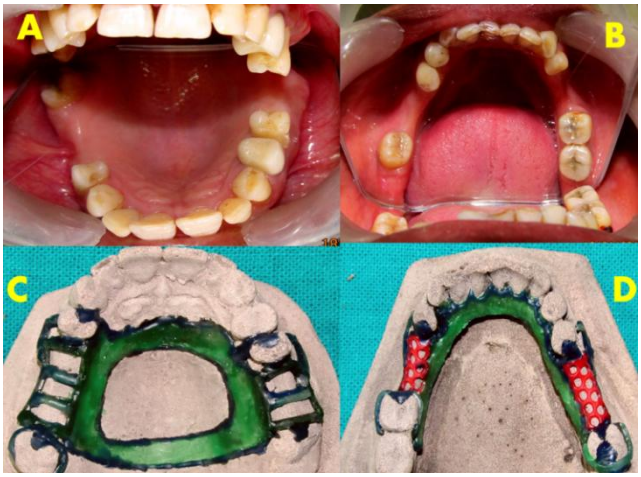

Figure (A) Intra oral view of maxillary and (B) Mandibular Kennedy class 3 modification 1 partial edentulous arches (C) Maxillary and (D) Mandibular refractory casts with planned wax patterns

Figure 1: (A) Framework trial before denture processing (B) Processed maxillary and mandibular cast partial dentures (C) Cast partial denture in place showing occlusion and components

with loss of anterior guidance in relation to maxillary and mandibular canines. Diagnosis and treatment plan was done after radiographic investigations and a diagnostic mounting on a semi adjustable articulator.

After presenting different treatment options, the patient opted for a cast partial denture in relation to maxillary arch. Primary casts of both maxillary and mandibular arches were obtained for diagnostic evaluation and were then surveyed on a dental cast surveyor for four principal factors, namely the path of insertion and removal, aesthetics, interferences and guiding planes. Mouth preparations were made for each component in the next appointment following which final impressions were made using different consistencies of Addition polyvinyl siloxane material (Reprosil, Dentsply/Caulk; Milford, DE, USA) on a special tray. After designing the cast partial denture that included the use of a simple circlet clasp, I bar clasp, indirect retainer and ring clasp for maxillary and mandibular cast partial denture (Fig 1 C and D). The metal framework obtained after casting was then tried in the patient's mouth (Fig 2A) following which the denture base and the artificial teeth were processed into the RPD (Fig. 2 B). Both cast partial dentures were then inserted with minor adjustments in the bar clasp and the simple circlet clasps (Fig 2 C). The patient was put on a strict follow up protocol for a period 3 months during which he adapted well to the prosthesis.

Discussion

Apprehension in psychology is a term that is applied to a model of consciousness in which nothing is affirmed or denied on the object in question, but the mind is merely aware of it. Most of the time apprehension transforms physically into anxiety, which begins a multisystem response to a perceived threat or danger. The fear of dental treatment is neither unusual nor is abnormal, however, in the present scenario avoiding the pain and therefore anxiety associated with any dental treatment is easily possible with or without the use of drugs. We present a case report whose high apprehensive level at the beginning of the treatment was mainly related to the removable partial denture prosthesis and was not associated with dental pain. Diagnosis of apprehension should start from history taking and relevant questions include past dental history and experience, knowledge of others experiences, possible causes of delays in dental treatment, reasons for tooth loss, recent palpitations, trouble sleeping the night before the appointment or history of seeking only emergency care and avoiding regular and constant care. [8] Most of these features were associated with the patient reported in this case. Managing apprehension in a child is different from that of an adult. In a prosthodontic set up apprehension is best managed by preventing certain causes (psychogenic) in the clinic. Procedures should be kept simple and patient should avoid seeing or listening to anything that may cause apprehension for example impression mixing in front of the patient could cause apprehension and may lead to gagging. [9]

Other effective procedures utilized in management of this patient included appropriate greetings from the staff whenever the patient had an appointment, maintenance of eye contact whenever there was a

query from his side, reassurance, patient education about limited possibilities of other prosthetic options due to long span partial edentulous areas, gaining trust through properly scheduled appointments and minimizing patients waiting time, scheduling patients appointments according to his convenience, using euphemistic language during treatment procedures and finally maintaining a low tone voice during conversations.

Conclusions

Within the scope and limitation of this case report, it can be concluded that patients do have apprehensions regarding use and wear of a cast partial denture and management of such patients is essential to promote treatment options like cast partial denture which are versatile in comfort.

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