

# A SURVEY OF COMPLAINTS OF PATIENTS WEARING ARTIFICIAL COMPLETE REMOVABLE DENTURES

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### Abstract:

**Context:** To know the various complaints by complete denture wearers to improve the quality of denture.

**Aims:** This study aims to compare patients' complaints and problems after wearing complete dentures and to check whether patients follow post insertion instructions or not.

**Settings and Design:** Questionnaire based study in a dental institution.

**Methods and Material:** The study was conducted in Department of Prosthodontics in institute of Gujarat, over a period of 4months. The study included 150 complete denture patients wearing complete dentures who reported for follow up during the study time. They were selected randomly with age range of 45-75 years including males and females. The Questionnaire included 23 questions on various post insertion complaints. This questionnaire was approved by the institutional ethical committee. Most commonly encountered complaints were included such as pain while inserting or removing dentures, difficulties in masticating their food, loose dentures, discomfort in speaking, ulceration, restricted space for tongue. Satisfaction regarding fitting, comfort and aesthetics were then compared.

**Statistical analysis used:** The data was analysed using Descriptive statistics like frequency table, percentage and Person's chi-square test.

**Results:** It was observed that adaptation problems with complete denture (45.15%) were higher than problems related to appearance(38.6%) followed by problems of discomfort(34.27%). Overall 56.7% patients were satisfied with their denture.

**Conclusions:** This study suggested that complete denture patients present with complaints in follow up appointments when there are denture errors. Hence,dental professionals should understand the patients desires from denture and be able to eliminate the complaints to facilitate denture acceptance by the patients.

**Key-words:** complaints, complete denture, follow up

## Introduction:

Complete denture is essential to rehabilitate the stomatognathic system by improving masticatory efficiency,

phonetics and aesthetic appearance of completely edentulous patients.<sup>1</sup> Hence, the follow-up care of complete denture is an important step and it helps to correct minor problems and complaints,<sup>2</sup> as wearing

complete dentures with problems and complaints may have adverse effects on the health of denture supporting tissues. These effects can be categorized into direct and indirect sequelae.<sup>3</sup>

Psychologic factors also share an extremely important role in the acceptance of and adaptation to removable dentures.<sup>4</sup>

For proper functioning of a denture, patients should be adequately cared for after the dentures are placed in the mouth. In many instances the most crucial time in the patient's perception for success and failure of denture is the adjustment period. Boucher has advised recall appointments immediately 24 hour post insertion and periodic check up phase. Sharry has advised four recall appointments after 10 days, 3 weeks, 6 weeks and 3 months consequently from denture placement.<sup>5</sup>

This study was undertaken to compare patients' most common complaints after wearing complete dentures and to check whether patients follow post insertion instructions. Also to evaluate patients' satisfaction with denture related to retention, speech, chewing ability and the comfort of wearing dentures.

### **Subjects and Methods:**

This was a questionnaire based study conducted in department of Prosthodontics in institute of Gujarat, over a period of 4 months. The study included 150 patients wearing complete dentures who reported for follow up during the study time. They were selected randomly with age range of 45-75 years including males and females. The selection of the patients was done according to following criteria.

### **Inclusion Criteria:**

Patients well oriented to time, place and person & who followed the instruction properly were selected.

### **Exclusion Criteria:**

Those who were suffering from OSMF, TMJ dysfunction, Neurological disorders, Psychological defect and patient with extremely resorbed ridge were excluded.

### **Methodology:**

The patients were made comfortable after properly seated on the dental chair and asked to participate in the study after explaining the aim and methodology of the study. A Questionnaire approved by ethical committee was designed that included various post insertion complaints and satisfaction. To facilitate the categorization of various complaints of the patients, we had divided 3 major concerns of patient related to the complete denture as shown in table 1. Under those categories we had included the different complaints encountered during the study. The data was analysed using Descriptive statistics like frequency table, percentage and Person's chi-square test.

Satisfaction regarding fitting, comfort and aesthetics were then compared.

### **Results:**

Out of 150 patients 77 were Females and 73 were Males. The results showed that females were having more complaints about denture than males as shown in Table 2.

It was observed that adaptation problems with complete denture (45.15%) were higher than problems related to appearance (38.6%) followed by problems of discomfort (34.27%). (Figure 1)

In adaptation problems, most common complaint was pain during insertion and removal of denture (45.30%). 44% patients claimed that their lower denture was loose, 42.7% had movement of denture during mastication or speech. Around 28.9% patients complained of speech problem. 36.7% patient complained of tongue or cheek biting followed by lip biting. Due to over extended border of denture, 44.7% patients had pain and mucositis in sulcus area. (Figure 2)

In discomfort problems, it was observed that the most common problem faced was ulceration (48%) followed by gagging (22.3%). Only few percentage (12.2%) of patients had burning sensation due to denture. Only a few patients had complaint of excessive salivation or drooping of saliva from corner of mouth. (Figure 2)

There were problems regarding facial appearance too. Around 42% patients were not satisfied with their look due

to denture and 35.2% were not satisfied with their teeth color and size (Graph 2). Although these patients or people accompanying them were shown and asked to evaluate their dentures at the time of try in.

Average 56.7% patients were satisfied with their denture.

**Discussion:**

There has been a great recognition of the need to know about the problems related to oral health of older population as it can help in treatment and future planning of dental services. The wearing of a complete denture may be associated with some complaints especially following the insertion of the denture. The results of this study showed that most of the patients complained of mastication discomfort or pain and looseness of dentures. This result supports the study of Brunello et al in 1998<sup>6</sup> that was the most common complaints of the complete denture patients in sample were Pain and Generalized Discomfort (75%), Difficulty in Eating (61%), and Looseness of the dentures (59%).

According to Yoshizumi, Langer and Sheppard, satisfaction and comfort rate in good quality complete dentures varied between 69% - 85%. The sequence of denture adjustments, reline, remake can develop into a cycle with some individuals.<sup>5</sup> Brunello and Mandikos carried out a study on 100 patients with newly fabricated complete dentures and found that the most common post-insertion complaint was pain and discomfort due to mucosal injuries and traumatic ulcerations, which had no significant association with patient age, sex or medical status.<sup>6</sup> Dervis in his study assessed the most common complaints of 600 patients, 3 months after insertion of their new denture. Statistically significant relationships were observed between denture construction faults or the condition of the patient's denture bearing mucosa and patient complaints.<sup>7</sup>

Around 28.9% of patients complained of difficulties in speech and the findings were similar to Aghdaee et al study in 2007<sup>8</sup>. It may be due to the overextension of the upper dentures onto the soft palate which generally results in speech difficulties and it may cause gagging.

Loss of retention was also commonly seen in 44% of dentures. The reason for the high prevalence of retention loss and mucosal irritation may be due to ongoing bone

atrophy. Such atrophy occurs not only on the surface, but also involves height loss of the alveolar crest and loss of retention caused dissatisfaction of patients related to function. The loss of retention of the dentures may have impaired the patients' ability to chew. Denture retention is a major requirement for patient satisfaction. The border extensions of dentures, which play a key role in retention, are determined mainly by the clinicians who are responsible for obtaining a good impression. Due to the influence of muscles and the compressibility of the mucosa, there will always be a certain amount of denture movement.

A significant relationship was observed between the presence of denture retention problems and complaints of loose dentures as well as difficulties in mastication. These results corroborate with those of Smith and Hughes<sup>9</sup>, who observed same problems in denture base extension and generally poor retention. According to this survey, more complaints were observed in females than in males which would differ from the reports of Langer et al<sup>9</sup>. However, the results of our study supports the findings Powter and Cleaton-Jones<sup>10</sup> and Winkler<sup>11</sup>.

Most edentulous individuals over the age of 60 years are wearing dentures that are more than 5 years old, and as a result, mucosal changes are present in 44-48% of cases. The need for treatment, based on clinical judgment, suggests that old dentures should be replaced. Elderly people consider the requirement of new denture only if they experience pain, difficulty in chewing, or a deterioration of oral appearance, a existing dentures are broken or lost.

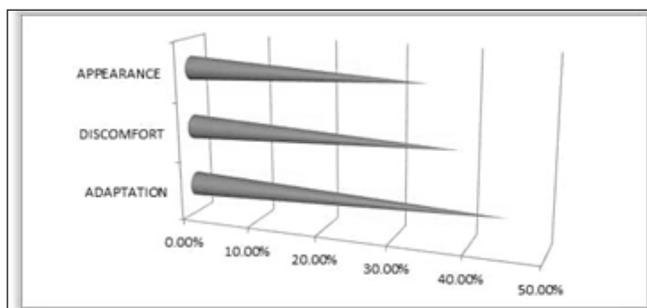
Limitation of the study could be that, we as dentists can never be fully certain whether the patients have aptly followed all the post insertion instructions or not. Also dentures were fabricated by both the, undergraduate and postgraduate students, so the quality of imparted dentures fail to be consistent.

Adaptation Problems	Pain during insertion and removal of denture Difficulties in mastication Speech problem Looseness of denture Cheek and tongue biting
Discomfort Problems	Gagging Ulceration Burning sensation Excessive salivation
Appearance Problems	Satisfied with facial appearance Satisfied with teeth color and shape

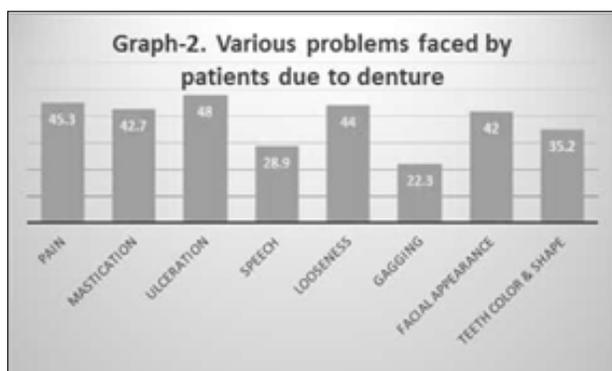
**TABLE: 1 Different post insertion complaints**

Complains	Male	Female
Pain	39.7%	50.6%
Mastication	39.7%	45.5%
Ulceration	40.5%	57.1%
Looseness	42.5%	45.5%
Speech	21.5%	36.1%
Appearance	61.6%	59.7%
Satisfaction	58.4%	54.8%

**TABLE:2 Distribution of percentage of complaints among gender**



**Figure- 1. Frequency of problems**



**Figure-2. Various problems faced by patients due to denture**

### Conclusion:

This study found that complete denture patients experiencing difficulties with their dentures most frequently complained of pain and discomfort, difficulty with eating, and looseness of their dentures. There are many ways that dentures can be improved, and dentists should be able to assess the quality of a denture in terms of esthetics, support, retention, and stability. Complete denture patients presenting with post insertion complaints is quite common. As a Prosthodontist it is mandatory to evaluate and treat the root of the cause for a patient's satisfaction and as a part of our profession.

The quality of denture delivered in department can be assessed and further efforts can be made on improving

each aspect of denture fabrication by undergraduates and postgraduates students.

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