



## RESEARCH ARTICLE

### POST INSERTION DENTURE PROBLEMS ASSOCIATED WITH COMPLETE DENTURE PATIENTS IN KASHMIRI POPULATION: A SURVEY-BASED ORIGINAL RESEARCH

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#### ABSTRACT

**Introduction:** For successful denture therapy an understanding of the common denture follow up problems and their rectification is important. Studies have shown regional differences in the frequency of occurrence of different denture related problems. The aim of the present study was to find out the frequency of chief denture follow up complaints in the Kashmiri population and their comparison among both sexes. **Material and Methods:** A survey was conducted in the form of a questionnaire including 136 denture follow up patients. The response was collected, accumulated and analyzed statistically. **Results:** Based on the survey conducted on 136 denture wearing patients included in the study, pain/discomfort related complaints were highest in occurrence 37.5% closely followed by complaints of retention 27.9%. The esthetics and phonetics related complaints were comparatively less with 17.6% and 16.9% respectively. Female population group had a higher occurrence of esthetic complaints as compared to males. **Conclusion:** Within the limitations of this study it was found that the most common complaints of denture follow up patients were related to pain/discomfort. This study should help the local practitioners to understand the needs and desires of the local population, thereby minimizing failure rates.

## INTRODUCTION

In spite of the advances in the field of implant dentistry, Conventional dentures still remain an essential part of oral rehabilitation of the completely edentulous patients (Diehl and Foerster, 1996). For successful complete denture therapy, a practitioner must be capable of troubleshooting the complaints of post denture usage. Patients visiting for post denture insertion follow up often present with several complaints and a practicing dentist must be well versed to understand, classify and rectify these problems to gain patient confidence (Lechner et al., 1995). The problems associated may be varied and difficult to understand and a lot of confusion may arise if one is not able to diagnose the underlying cause. Most frequent complaints being pain/discomfort, loose denture (retention issues), inadequate denture esthetics or phonetics (Brunello and Mandikos, 1998; Jeganathan, 1993; Laurina and Soboleva, 2006; Kimmelman et al., 1967; Smith and Hughes, 1988). A lot of literature is available for troubleshooting these denture problems (Zarb et al., 1997; Winkler, 2009; Rahn et al., 2009; Grant et al., 1994). Earlier studies conducted to define these denture problems have shown varied results (Lechner et al., 1995; Jeganathan, 1993; Laurina and Soboleva, 2006; Ogunrinde, 2012). The different findings of these studies suggest that regional differences may be there due to varied patient's level of education, expectations, social mores, dietary habits and dental awareness (Carlsson et al., 1967; Ainamo

and Osterberg, 1992; Devlin et al., 2001). Determining the chief complaint can enable to solve the patient's problem in particular and figure out the most common errors regarding denture fabrication in general. This study on Kashmiri population will provide a local perspective of the other researches done in other parts of the world. Also, this study can help the local practitioners to understand the needs and desires of the local population thereby minimizing failure rates.

## MATERIALS AND METHODS

A survey was conducted for a period of 1 year (April 2018-March 2019) on 150 patients reporting to the Deptt. Of Prosthodontics, GDC Srinagar with various denture follow up complaints. The patients were recruited for the study after fulfilling the inclusion criteria and upon signing the informed consent form.

#### Inclusion criteria comprised:

1. Edentulous patients (both maxillary and mandibular).
2. Regular denture wearers.
3. First time denture wearers.
4. Period of edentulousness < 5 yrs.

#### Exclusion criteria:

1. Medically compromised patients

2. Pt. having psychiatric or neurological disorder.
3. Patients having TMJ disorder history
4. Patients not willing to participate in the study.

After excluding the patient's not fulfilling the criteria, 136 patients were included in the study consisting of 80 male and 56 female patients. A questionnaire was filled by the same operator on the basis of the patient's response to the questions to eliminate any bias.

#### Questionnaire

Name: \_  
 Age: \_  
 Sex: \_  
 Residence: \_  
 Chief complaint: \_  
 Any relevant medical History: \_  
 Any medications : \_  
 Duration of Denture usage: \_  
 Dentures fabricated at : \_

#### Problem list :-

##### Pain/Discomfort :-

- a) Localised / Generalised
- b) Involving Maxilla/ mandible
- c) any other associated factors.

##### Retention issues :-

- a) Whether at rest /while talking/ while chewing. /lose dentures
- b) involving maxilla/ mandible
- c) any other associated factors.

##### Esthetics issues :-

- a) Tooth size/shape/color
- b) Lip support/ fullness
- c) Cheek support.

##### Phonetics :-

## RESULTS

Based on the response of 136 study subjects to the questions included in the questionnaire designed for the study, the chief complaints of the patients were quantified. The study included 80 male patients and 56 female patients. The highest number was that of patients with chief complaint of pain/discomfort (37.5%), (Table 1), the second most common complaint associated with denture usage was that of retention (27.9%), which were followed by esthetics and phonetics related complaints which were 17.6% and 16.9% respectively. Based on the comparisons of frequency of different complaints among male and female population, significant differences were found in the complaints regarding esthetics with females being 28.5% as compared to males which was only 10 % (Table 2) whereas males complained more about retention problems, the rest of the problems were comparable in frequency of occurrence.

Table 1.

Gender of patient examined	Pain/Discomfort	Retention	Esthetics	Phonetics
Males (80)	31	26	08	15
Females(56)	20	12	16	08
Total (136)	51(37.5%)	38(27.9%)	24(17.6%)	23(16.9%)

Table 2.

Denture problems	Male	Female
Pain/Discomfort	38.75%	35.7%
Retention	32.5%	21.4%
Esthetics	10%	28.5%
Phonetics	18.75%	14.28%

## DISCUSSION

Fabrication of artificial removable prosthesis is frequently associated with several complaints especially during the initial period of adjustment. Developing a positive rapport with the patient and positive patient-dentist relationship plays an important part in the ultimate denture success (Velvoon *et al.*, 1998; Seifert *et al.*, 1962; Langer *et al.*, 1961). It is important to have an understanding of the common denture problems and skill to diagnose and treat them aptly. In the present study, pain/discomfort was the most common complaint of the patients (37.5%) followed by lack of retention (27.9%), esthetic complaints (17.6%) and lack of proper phonetics (16.9%). Pain/discomfort due to new dentures may be associated with defects in the impression surface (acrylic pearls, sharp spicules) (Grant *et al.*, 1994), overextended flanges impinging on the limiting structures (e.g. Mylohyoid ridge), pain due to occlusal imbalance (Gunnar *et al.*, 1998) or pain due to systemic factors (xerostomia, burning mouth syndrome, atrophic mucosa) (Oral mucosal lesions associated with the wearing of removable dentures, 1981; Tourne *et al.*, 1992) being the most common reasons. Lose dentures was second most common complaint reported, an imbalance between retentive and dislodging forces (Sheppard *et al.*, 1971) is the reason for lose dentures and inability to diagnose the underlying cause can be quite frustrating on part of the dentist. Esthetics related complaints have been found to be quite common with females as compared to males (28.5% as compared to 10%) suggesting that the female denture patients are quite particular about their appearance and the way their denture/artificial teeth should look like. Ample time should be given to the teeth form selection based on patient's personality and preferences. Time spent at the try-in appointment can avoid any esthetic issues later on (Brisman *et al.*, 1980). Phonetics was the complaint of approx. 17% of the patients the reason being mostly lack of patient education or improper teeth arrangement in the anterior region and palatal contours (Carr *et al.*, 1985). The denture follow up problems should be dealt with scientific knowledge of underlying causes and not arbitrary measures undertaken based on guess work. It is essential to have a sympathetic attitude towards the patient and willingness to listen to the patient's complaints. Denture success largely depends on troubleshooting post insertion follow up complaints.

## Conclusion

Conventional complete denture service remains an important procedure of oral rehabilitation. A thorough understanding of the common denture follow up problems and their underlying etiologies is essential for successful denture therapy. Within the limitations of this study, it has been found that the most frequent complaint of denture wearing patients was related to pain/discomfort followed by the complaint of lose dentures due to lack of retention. The complaints regarding denture esthetics were more common in female patients due to their enhanced esthetic concerns. Some of the common causes for these frequent complaints have also been discussed.

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