

Clinical assessment of post insertion complications and satisfaction encountered among complete denture wearers

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Abstract

Introduction: Edentulous patients are still a matter of concern in countries like India due to less awareness of oral health care. Majority prefer complete denture for rehabilitation but here the primary challenge for a dentist is to satisfy the patient needs with successful management. The objective of the present study was to assess the post insertion complications encountered by complete denture patients and the level of satisfaction among them.

Materials and Methods: 100 elderly patients provided with a new set of complete denture for both arches were selected and examined. The data was collected as per the need of customized design questionnaire.

Results: Among post-insertion complaints from patients pain was the most common and almost present in more than 50% of patients. Difficulty in mastication and slurring of speech was also one of the major problems reported in denture wearers.

Conclusion: Patient satisfaction is a critical determinant in the success or failure of complete denture therapy. A Prosthodontist should communicate well to adjust the treatment and pace according to the need of patient. Behavioral therapy during the visits can have a positive effect in relieving anxiety and pain of the patient.

Keywords: Complete denture, Complications, Edentulous, Post-insertion, Satisfaction.

Introduction

Loss of natural teeth either due to ageing or for some other variable reasons has a direct impact on functional as well as psychosocial behavior of patient's life. It is basically considered as substandard health care issue which compromises the quality of life. Although due to increase in awareness regarding oral health care number of edentulous patients decreasing but there are still large number of denture wearer patients in countries like India. Complete dentures are the most common form of prosthetic rehabilitation for edentulous arches. The supreme demanding and challenging dental treatment execution in day to day practice is still the successful management of complete denture patient who encounter ongoing difficulties with their delivered prostheses.^{1,2} Patient adaption ability is far most important and critical factor in successful management of denture patients. Many patients with positive perspective overcome any hurdles encountered during and post treatment, however, some are unable to adapt physically or psychologically to their dentures.³ It has been observed that irrespective of gender with advancing age there is a hitch in learning to adapt and manage prostheses. In addition, in a particular older age group impractical expectations has also been reported which further leads to post insertion denture complaints.^{4,5}

Varying studies recommend that there might be several reasons behind such complaints like patient's expectations with dentures, social pressure, lack of dental awareness or negative impact of any past dental visits.⁶⁻⁸ Most frequent complaints reported are discomfort, pain on chewing,

difficulty in mastication, slurring of speech and few concern with the esthetics also.⁹ It would be in the best interest of both prosthodontist and the patient to develop a positive attitude with each other and to determine any issues as early as possible. The present study was taken to assess the post insertion complications encountered by complete denture patients and the level of satisfaction among them.

Materials and Methods

The present analytical study was conducted on a sample of 100 elderly patients (50 males and 50 females) aged between 50-65 years who were reported to Department of Dentistry, Medical College over a period of 2 years. The patients provided with a new set of complete denture for both arches were selected for the study. And consequently each denture was examined for structural and functional defects. The data was collected as per the need of customized questionnaire. The complaints were categorized as discomfort/ pain, retention problem, esthetics concern, difficulty in mastication/ speech, food accumulation under denture, any form of oral mucosal lesions and miscellaneous. The resulting data was analyzed qualitatively and quantitatively.

Results

Table 1 depicts the results obtained after the quantitative evaluation of various complaints in relation to elderly male and female patients.

Table 1: Quantitative evaluation of type of complaint in relation to gender

S. No.	Type of complaints	Male-50 Number (Percentage)	Female-50 Number (Percentage)	Total Number (Percentage)
1.	Discomfort	34 (68%)	23 (46%)	57 (57%)
2.	Pain	16 (32%)	10 (20%)	26 (26%)
3.	Lack of retention	13 (26%)	07 (14%)	20 (20%)
4.	Difficulty in mastication	11 (22%)	05 (10%)	17 (17%)
5.	Altered speech	07 (10%)	10 (8%)	17 (17%)
6.	Food accumulation	03 (6%)	09 (18%)	12 (12%)
7.	Esthetic concern	04 (8%)	12 (24%)	16 (16%)
8.	Any form of oral mucosal lesions	07 (14%)	06 (12%)	13 (13%)

Most common problem encountered in our study was discomfort followed by pain in the denture wearer elderly patients. Lack of retention and difficulty in mastication is also matter of concern.

Discussion

Complete denture is utmost familiar treatment modality for completely edentulous patients. Post- insertion of denture, patient often encountered certain complications or issues with the denture, even when the prosthodontist completely takes care of variable fabrication procedures. The need to assess both patient's and clinician's views regarding these issues is believed to be at the centre of success when providing dental health care for elderly patients.^{10,11}

As suggested by Mc Cord et al the primary complaint reported by elderly patients soon after the delivery of prostheses includes pain/ discomfort, lack of retention/ stability or general problems in relation to adaptation. Other common complaints can be difficulty in mastication, altered speech, accumulation of food under the denture, esthetic concern, any form of oral mucosal lesions etc. Without doubt listening to the patient (as their difficulties are described) is the most important first step in the process, and its importance cannot be overemphasised.^{3,10,12} The present study was taken to evaluate the complaints of elderly patients regarding complete denture and their satisfaction level.

Many studies have been conducted in several countries and regions on the issues related to post insertion of denture in elderly patients; however due to regional and personal variations there is no agreement on the most prevalent complaint. Some researchers suggest pain or discomfort the most common while others suggest lack of retention as most frequent complaint.^{1,9-13}

In present study majority of respondents i.e. more than 50% were having discomfort after wearing complete denture; the reason could be as they were first time wearers of prostheses there may be a difficulty for them to adapt with new thing. The other complaint showed prevalence was pain in around 26%, here male were affected more by it than females. This is in contrast to study done by Salih in Iraq where females were more complaining about pain than males.¹

Lack of retention/stability is one of the matters of concern as around 20% patients presented with this complaint. A study done by Koul et al. revealed that error in

denture base is the most common cause of denture complaints.⁹

Dentist should be more aware at this point, and at each and every step should be more cautious. This could also be due to normal ageing process which results in atrophic ridges. Ageing definitely affects the patient's ability to adapt to new dentures.

Speech is vital to human activity, and in our study difficulty or alteration in speech showed by around 17% of respondents, which is similar to other studies done by Salih et al. and Singh et al.^{1,13} Therefore, phonetics must be considered as fundamental factor in success of denture prostheses. Xerostomia and other mucosal factors also play role here. An interesting finding of our study is esthetic concern which was more prevalent in female patients.

Less common complaints were food lodgment under denture and any oral mucosal lesion following denture insertion. Maintenance of oral hygiene by the patient as instructed by clinician lead to lesser chances of food accumulation under denture. The most common condition associated with denture wearers were oral stomatitis, mucosal lesions or superimposed infection. Most of denture related injuries occur at specific areas, therefore, post-insertion adjustments is an important aspect of rehabilitation.¹⁰

To lessen the number of denture based complaints there should be positive attitude among patients to adapt it which can be further build up by a clinician through proper conditioning of patient.

Conclusion

Patient satisfaction is a critical determinant in the success or failure of complete denture therapy.

Post-insertion adjustments should consequentially done by clinician for the rehabilitation of patients with complete dentures. Behavioral therapy during the visits can have a positive effect in relieving anxiety and pain of the patient.

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Conflict of Interest

None

References

1. Salih HA, Al-Jmoor CA, Abdulazeez JR. Clinical assessment of common complaints among complete dentures wearers, in relation to, age and gender. *Int J Dev Res.* 2016;6(2):6683-7.
2. Jethlia H, Jethlia A, Raj PN, Meshram A, Sharma N. Post insertion problems and their management in complete denture. *J Evol Med Dent Sci.* 2013;2(3):194-9.
3. McCord JF, Grant AA. Identification of complete denture problems: a summary. *Br Dent J.* 2000;189(3):128-34.
4. Heartwell CM. Psychological considerations in complete denture prosthodontics. *J Prosth Dent.* 1970;24(1):5-10.
5. Fiske J, Davis DM, Horrocks P. A self-help group for complete denture wearers. *Br Dent J.* 1995;178(1):18-22.
6. Carlsson GE, Otterland A, Wennström A, Odont D. Patientfactors in appreciation of complete dentures. *J Prosthet Dent.* 1967;17(4):322-8.
7. Ainamo A, Osterberg T. Changing demographic and oral disease patterns and treatment needs in the Scandinavian populations of old people. *Int Dent J.* 1992;42(1):311-22.
8. Devlin H, Reddick HG. Biological guides to the positioning of the artificial teeth in complete dentures. *Dent Update.* 2001;28(10):492-5.
9. Koul A, Agarwal S, Singhal R, Tripathi S. Structure functional analysis based on postinsertion problems with complete dentures in Moradabad, North India: A cross-sectional study. *J Indian Prosthodont Soc.* 2018;18(3):219-25.
10. Jain S, Oberoi N, Kumar A, Aggarwal A, Kaur K. A study to evaluate the location and frequency of denture-related ulcerations and postinsertion adjustments in complete denture patients. *Indian J Dent Sci.* 2017;9:16-21.
11. McNaughter GA, Benington IC, Freeman R. Assessing Expressed Need and Satisfaction in Complete Denture Wearers. *Gerodontology.* 2001;18(1):1-57.
12. Ogunrinde TJ, Dosumu OO. The influence of demographic factors and medical conditions on patients complaints with complete dentures. *Ann Ibd Pg Med.* 2012;10(2):16-21.
13. Singh H, Sharma S, Singh S, Wazir N, Raina R. Problems Faced by Complete Denture-Wearing Elderly People Living in Jammu District. *J Clin Diagn Res.* 2014;8(12):ZC25-7.

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