

KNOWLEDGE AND ATTITUDE OF DENTAL SURGEONS ABOUT USE OF DENTURE ADHESIVE. A QUESTIONNAIRE BASED STUDY.

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Abstract

Aims and Objectives: The basic purpose of this study is to evaluate the knowledge and attitude of general dental surgeons (Dentist) toward use of denture adhesive in complete denture.

Materials and Methods; A detailed questionnaire was prepared and a total of 100 dentist were surveyed using this questionnaire, in order to understand the knowledge and attitude about denture adhesive in complete denture.

Result; The result of this survey shows that about 56% of dentist know about denture adhesive, and 56.6% reported improved mastication retention and stability. Most the dentist is well aware about denture adhesives in Darbhanga town but their knowledge is only limited to the use of denture adhesives.

Conclusion; the knowledge of denture adhesive among dentist in Darbhanga town is not as much as expected, however they are using it in their clinical practice since long.

Introduction

Complete denture is the most common oral prosthesis used by millions of people across the globe for masticatory purpose, since the complete denture takes support of oral mucosa and alveolar bone for retention and stability and it is not fixed with any structure in oral cavity there are chances of non retention and stability of complete denture. In order to gain retention and stability most of times denture adhesives were used.

The basic objective of any prosthetic treatment is to restore masticatory function¹. Improving denture retention and stability is a big challenge in prosthodontics². Unstable denture causes multiple problems in oral cavity and the most common is loss of masticatory ability of patient. Denture retention, stability and support is enhanced by using denture adhesive material which on absorbing saliva swell and create strong force between denture and the tissue beneath denture³, it has been used widely by denture wearers in cases of well fitting and ill fitting denture as a means to enhance denture retention, stability and function⁴⁻⁶. In beginning dentists hold negative vibes about uses of denture adhesive in their clinic⁷ however these materials gradually begun to gain acceptance among clinician.

Denture adhesive was first introduced in dental field in late 18th century. The first patent related to it was issued in 1913 in United States of America, followed in the 1920 and 1930s⁸. ADA approved the use of denture adhesives in 1935⁹. A number of studies approved that retention and stability improved by using denture adhesive materials¹⁰. Uses of denture adhesives improved stability, retention, fit and comfort as well as improved chewing ability, this leads to bring confidence in patients¹¹. Wilson et al reported that 30% of denture wearers used denture adhesive¹². Tarbet and Grossman show that about 12% of complete denture wearers used an adhesives¹³. In United States of America more than five million people wearing denture uses denture adhesives in 1996 and about 75% dentist recommended use of denture adhesive to their patient¹⁴.

Materials and Methods:

A total of 100 dentists were chosen randomly for this survey they were asked to go through the questionnaire and complete it in their own language. A total of 10 questions were prepared in order to evaluate the knowledge and attitude of dentists toward denture adhesive. The results were analyzed and prepared in graphs.

Table 1: Questionnaire for dentist:

Questions	response(A)	response(B)	response©	response(D)
1. Do you know about denture adhesives	Yes	Yes	No	No
2. In which cases denture adhesive were preferred.	Lack of retention	lack of retention	lack of retention	Not know much
3. Do you know the main constituent found in denture adhesive?	Carboxymethyl cellulose	Silicone	Methacrylate	Ppolysulfide
4. How denture adhesive works.	Decreased viscosity	Increasing viscosity	Not heard	Not known
5. Do denture adhesive improve retention and masticatory ability in patient?	Yes	Yes	Yes	Not sure
6. Which type of denture adhesive you prefer, i.e powder, cream.pads or others.	Powder	Powder	Cream	Powder and cream
7. How many brands of denture adhesive do you know?	One	Two	One	None
8. Is denture adhesive is alternative to a well formed complete denture.	No	Yes	No idea	No idea
9. what are the drawbacks of using denture adhesive.	Used multiple times in 24 hr	Messy to handle and difficulty in washing	None	Not know
10. Tell about experience of using denture adhesive in patient	Improved retention and mastication	Improved retention and mastication ability	Improved confidence in dentist and patient	

Results:

A total of 100 dentists were chosen randomly for the study. The response rate was 100%.

For the question no 1 ‘ did you know about denture adhesive 56% of dentist answered yes. For the question no 2 “ in which case denture adhesive is preferred most of the respondent about 70.6% say the know it very well and rest of the respondent says they don’ t have much knowledge about it. For question no 3 “ do you know the main constituent found in denture adhesive 27.5% dentist said silicone is the main constituent where as 64.5% said carboxy methyl cellulose is the main ingredient, 6% of respondent said methacrylate is the main constituent and 2% said polysulfide is the main constituent. For question 4 “ . How denture adhesive works most of dentist 63% said that it works by increasing viscosity of saliva, 27.4% said by decreasing saliva, 7.6% said they don’ t know and rest not heard a. For question 5” Do dentures adhesive improve retention and masticatory ability in patient? Most of the respondent 86.6% said that it improves where as rest says they not sure. For question no 6 “ Which type of denture adhesive you prefer, i.e. powder, cream. Pads or others 67.9% uses it in powder form, 8.3% uses it in cream form and rest of them uses it in both cream and powder form depending on availability. For question no 7 “ How many brands of denture adhesive do you know? Most of the respondent says 48% say two brands where as 34% says single brand while rest of the respondent don’ t know much or unable to recall. regarding question no 8” Is denture adhesive is alternative to a well formed complete denture 43% of respondent say no, 18.5% of respondent say yes, rest say they have no idea. for question no 9 “ what are the drawbacks of using denture adhesive 42.4% of the respondent said it is messy to handle where as

36.6% said it is used multiple times is main disadvantage, 13% of respondent don’ t know. For question no 10” Tell about experience of using denture adhesive about 61.6% of respondent cited that it increases retention and fitness, 34% said that improved masticatory ability is the main advantage.

Discussion:

The basic purpose of a complete denture is to improve the masticatory function and it all depends on the retention, stability and support that we obtained from the tissue upon which denture rests. However many a times due to long edentulousness, resorption of alveolar bones, less availability of functional tissue we did not get such retention, support and stability at that times denture adhesives is much of use in order to improve retention and masticatory function. Denture adhesives were used by many denture wearers to improve denture retention and stability¹⁵.

This study was done to know the basics of knowledge about denture adhesives in clinical practice among general dentist and to improve the knowledge about uses and function of denture adhesives.

in this study about 56% dentist know about denture adhesives , this is accordance to survey done in turkey in which 56.3% dentist use denture adhesive in clinical steps. 70.6% of dentist knows that denture adhesives were used in cases of low retention and stability which shows the knowledge in practice. 27.5% dentist said silicone is the main constituent where as 64.5% said carboxy methyl cellulose is the main ingredient, 6% of respondent said methacrylate is the main constituent and 2% said polysulfide is the main constituent. About 63% have knowledge that it works by increasing viscosity i.e. saliva

increases adhesives viscosity. Thereby increasing the force required to separate the denture. denture adhesives improves retention and thus mastication in our study 86.6% reported improvement in mastication and chewing, koronis et al¹⁶ reported improvement in 66 to 70% of denture wearers in his study. In our study powder form of denture adhesives is most commonly used 71.4% which is similar to study done by Rupal J Shah et al¹⁷ who reported it to be 71.8% and powder form is commonly available in market too. About 43% of dentist know only one brand of denture adhesive commercially available 21.5% have knowledge of two brands. In our study it is revealed that most of dentist do not have an idea that denture adhesive is alternative to a well formed complete denture. Only 26% of dentist said that denture adhesive is not an alternative to well formed complete denture. 26% of respondent said that using multiple times is main difficulty where as 29.5% said that denture adhesive is messy to handle/ rest has no much knowledge about it. Regarding experience as shared by patient by using denture adhesive 56.6% said that it improves retention, stability and improves mastication; Koronis et al reported that denture adhesive increases the masticatory ability in 66 to 70% of denture wearers.

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