

Knowledge, Attitude And Practice Regarding The Use Of Resilient Liners Among Dental Practitioners In Chennai

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ABSTRACT

BACKGROUND : A resilient lining material may be defined as an elastic or a viscoelastic material applied to the fitting surface of the denture for the purpose of reducing and for more evenly distributing occlusal loads on the underlying oral tissues. It reduces the masticatory forces transmitted by prosthesis to the underlying tissues. Resilient liners also acts as a shock absorbent. Thus use of resilient liners play an important role in dentistry.

AIM AND OBJECTIVE : To know about the knowledge, attitude and practice regarding the use of resilient liners among dental practitioners in chennai.

METHODOLOGY : A cross sectional survey was carried among 100 dental practitioners in chennai. A self assessed questionnaire with 11 questions where filled up by the respondents . The obtained data was further processed and analyzed.

RESULT : This study concluded that 90% are aware of the use of resilient liners. 87% are aware of the materials used, 88% were aware of the properties of resilient liners, 84% were aware of the use and 91% were aware of the complications of resilient liners but the daily use of resilient liners was minimal .Hence awareness programs to be initiated among dental practitioners for using resilient liners in their daily practice.

CONCLUSION : With our pilot study we suggest programs to improve the awareness about the use of resilient liners. Further research work with more number of dental practitioner is recommended.

INTRODUCTION :

Resilient lining materials have been used to provide cushion between the denture base and the supporting tissues and allow for more uniform distribution of stresses at the mucosa/tissues interface, as well as it help in better distribution of the occlusal forces.[1] These liners may be classified as provisional or definitive, room-temperature or heat-temperature vulcanised and they are also divided into four groups according to chemical structure: plasticised acrylic resins either chemical- or heat-polymerised, vinyl resins, polyurethane, polyphosphazene and silicone rubbers.[2-4]

The relining of a denture base has been shown to significantly decrease its resistance to plastic deformation, and Oral environmental variables such as thermal stress and flexural cyclic loading enhance the degradation and shorten the clinical life of relined denture bases. The plasticizers could leach from the conditioners and diffuse into the polymerized denture base, resulting in alteration of base properties. [5-6]

Surface roughness of the resilient liners may differ among materials and It enhance the adhesion of microorganisms onto resilient lining materials and may allow fungal growth and the denture plaque containing *Candida albicans* could cause denture-induced stomatitis.[7-9]

Currently the materials have to be considered as temporary expedients because of problems during clinical use including loss of resilience, water sorption, support of bacteria, color change, and loss of adhesion between the liner and denture base resin requiring replacement at short intervals, which is time-consuming and costly for both the dentist and patient.

MATERIALS AND METHOD:

This questioner based study was conducted for a period of one month(December2016). Questions on knowledge of resilient liners was asked to 100 dental practitioners. The questioner consists of 11 questions about the knowledge, uses and effects of resilient liners. The purpose of this study is to evaluate the use of resilient liners among dental practitioners in the daily use.

The questions in the questioner are as follows,

1. Are you aware of the use of resilient liners? Yes/No
2. Are you aware of the materials used as a resilient liners? Yes/No
3. If yes, what are the materials?
 - A. Polyvinyl chloride
 - B. Polyvinyl acetate
 - C. Natural rubber
 - D. Methyl methacrylate copolymer
 - E. silicone
 - F. All of the above
 - G. None of the above
4. Do you think different liner materials has different effect on oral cavity? Yes/No
5. According to you, What is the most commonly used resilient liners?
 - A. Plasticised acrylic resins
 - B. Silicone elastomers
 - C. Both A and B
 - D. None of the above.
6. Are you aware of the properties of resilient liners? Yes/No
7. If yes, what are the properties?
 - A. Lower water absorption
 - B. Adequate bond strength
 - C. No bacterial growth
 - D. Ease of cleaning
 - E. colour stability
 - F. All of the above
 - G. None of the above
8. What are the uses of resilient liners?
 - A. As tissue conditioners.
 - B. As functional impression materials
 - C. To restore distorted/ inflamed denture tissues.
 - D. To prevent trauma
 - E. To maintain fit of dentures
 - F. All of the above
 - G. None of the above

9. Are you aware of the complications associated with resilient liners?

A. Yes

B. No

10. If yes, what are the problems?

A. Loss of softness

B. Water absorption

C. Bacterial growth on resilient liners

D. Bond failure between liner and denture base

E. All of the above

F. None of the above

11. Do you use resilient liners in your daily practice? Yes/No

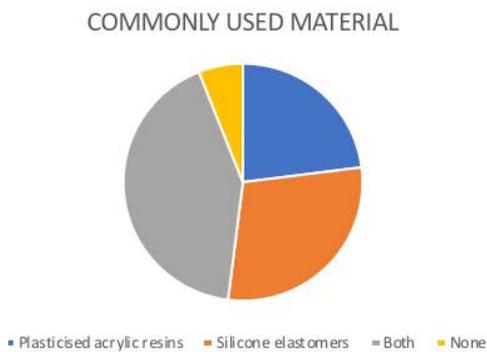
RESULTS:



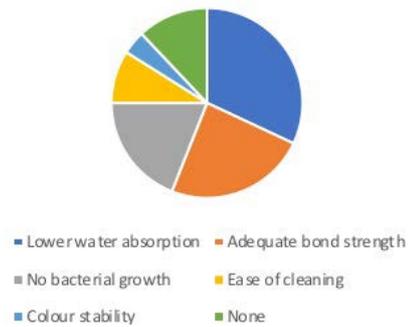
Graph 1



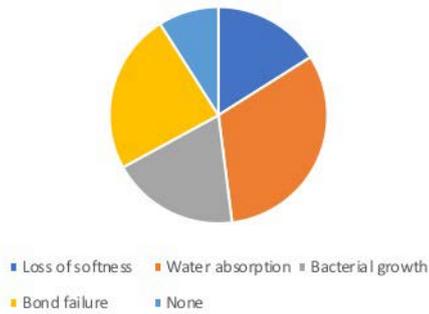
Graph 2



PROPERTIES

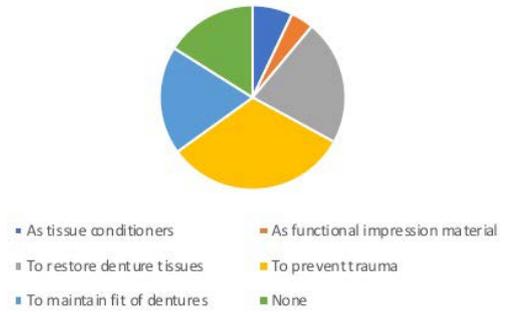


COMPLICATIONS



Graph 5

USES



Graph 6

DAILY USE



Graph 4

Graph 7

DISCUSSION:

Among 100 dental practitioners most of them are aware about the use of resilient liners, that is 90 of the are aware of it.(graph 1)

For the materials used as a resilient liners, 87 of the are aware of the materials used in that 42% of them prefers silicone material. According to Storer et al.,1962 reported that the use of self curing silicone were satisfactory in the clinical use and resilience of this material was the main advantage,being maintained for upto 5 years[10].(graph 2)

Regarding the properties of resilient liners 88 of them are aware and in that low water absorption property was highlited by 32%. According to Kazanji et al.,1988 reported that an

ideal material should have no component which is soluble in saliva or water and should have low level absorption[11].(graph 4)

Regarding the complications 91 was aware and major percentage was towards water absorption complication, according to Bates and Smith 1965, reported that excessive water absorption causes swelling of the materials and separation of bond between the liner and the base[12].(graph 5)

84 were aware regarding the uses of resilient liners in that the 34% pointed the prevention from trauma as a main use. According to Weinman and Sicher 1955, reported that increase of pressure beyond the limits can lead to the destruction of bone by resorption.[13]. (graph 6)

CONCLUSION:

From the results obtained, out of all the 100 dental practitioners, 90 of them are aware of the use of resilient liners, 87 of them are aware of the materials they use as resilient liners, 88 of them aware of the properties of resilient liners, 84 of them are aware of the uses and 91 of them are aware of the complications of resilient liners, but only 18 % are in the daily use of resilient liners because of their expensiveness.

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