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RESEARCH ARTICLE

KNOWLEDGE ATTITUDE AND PRACTICE AMONG DENTAL PRACTITIONERS REGARDING REBASING OF COMPLETE DENTURES

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ABSTRACT

Background: Relining is the resurfacing the fitting surface of a denture with a new material. Rebasing technique is the same as for reline except in the laboratory the palate is removed and a new one waxed in before processing. Cold cured acrylic or tissue conditioner are used. The flanges are trimmed (to reduce danger of over extension) and the undercuts removed. The new relining is then mixed and applied to the fitting surface. The denture is inserted and the patient asked to bite gently on the denture to ensure that the occlusion is not altered by the procedure.

Aim: The aim of the study is to evaluate the purpose of rebasing in complete denture

Objective: The purpose of this study is to analyze the uses of rebasing and the ways by which the denture is able to withstand within the oral cavity.

Materials and Methods:

A cross sectional study was conducted among the dental practitioners in Chennai. The study was conducted in the month of December, 2016. This study involved a sample of 100 practitioners. They were asked to fill an online survey consisting of 11 questions regarding knowledge, attitude and practice among dental practitioners regarding rebasing in complete dentures. The results were further evaluated.

Result: From the survey conducted, it can be observed that 88% of the practisers are aware of the rebasing in complete dentures. Heat cure acrylic is commonly preferred by the dental practitioners for rebasing the dentures.

Conclusion: The the above study concludes that dentists evaluate their expectations and satisfaction differently regarding the same denture therapy.

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INTRODUCTION

Rebasing is a laboratory procedure used to replace the entire denture base or an existing prosthesis. Rebasing is indicated for porous denture base and in case of deficient Acrylic during fabrication. However it is contraindicated in case of incorrect jaw relation. The need for complete denture treatment varies from patient to patient depending on their age, sex, occupation, socioeconomic background. It is essential to evaluate awareness and preference of need before starting treatment as treatment expectations may influence treatment planning. The need of rebasing are governed by factors like pattern of residual ridge resorption, vertical / horizontal changes in the basal seat area and changes in the edentulous maxilla / mandible. The same criteria apply to initiating the rebase that are required for the reline, except that correction of the polished side of the denture is desired as well as the tissue side. In the manufacture of removable partial and complete dentures, adhesive bonding between the metal framework and the denture base is an important factor in the durability of the denture structure. Most of the adhesive bonding of the metal framework to the denture base material depending on mechanical fittings which is effective enough for short-term use. Gaps may occur between the framework and the residual mucous membrane when a denture has been used for a long time. In the case of metal base dentures, repairing the gap is clinically a long time procedure . It is preferable if the metal base denture can be simply repaired using a resin material. However, for adhesive bonding of metal to a resin material in such a case, additional treatment for chemical adhesion is required. The study is done to ensure the denture satisfaction through rebasing means for patients who are complete edentulous. This enhances their aesthetic appearance and to motivate the patients.

Rebasing procedure: The borders of the denture and tissue surface is reduced by 2 mm. Border moulding and final impression is made with zinc oxide eugenol or rubber base impression material as for the relining procedure and the

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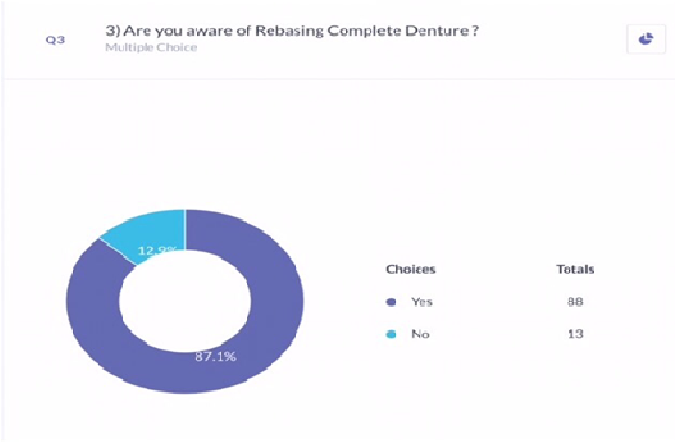
impression is poured into the dental stone . The cast with the denture is mounted into the articulator. The base is trimmed away from the teeth and the arch of the teeth is maintained intact. The intact arch of the teeth is placed back in the index and the articulator is closed. Wax up is done on the mounted cast to incorporate the arch of teeth placed in the opposing index. The cast with the wax up is flasked, dewaxed and the Acrylic is cured in the place of wax. Finishing and polishing of the denture is done.

MATERIALS AND METHODS

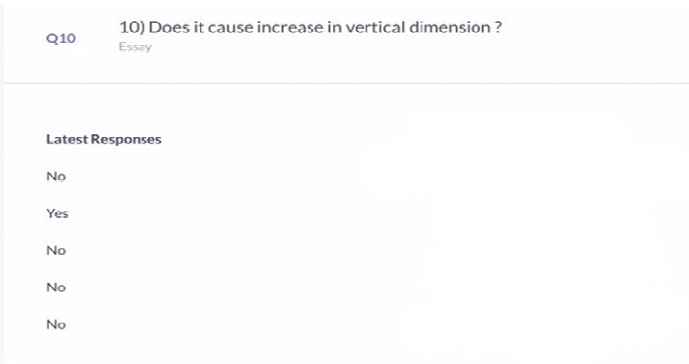
A cross sectional study was conducted among the dental practitioners in Chennai. The study was conducted in the month of December, 2016. This study involved a sample of 100 practitioners. They were asked to fill an online survey consisting of 11 questions regarding knowledge, attitude and practice among dental practitioners regarding rebasing in complete dentures. The results were further evaluated.

RESULTS AND DISCUSSION

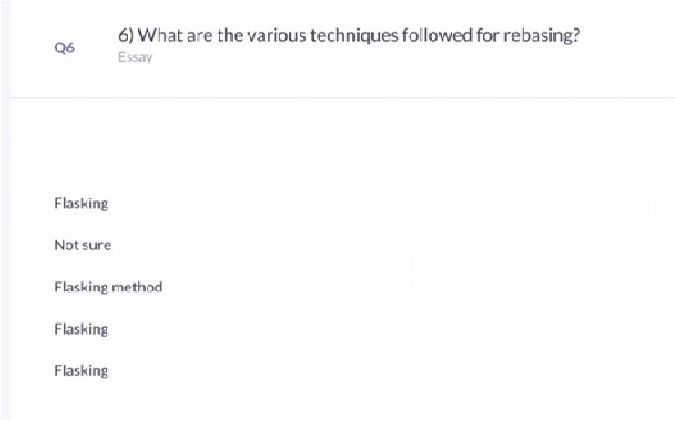
In the manufacture of removable partial and complete dentures, adhesive bonding between the metal framework and the denture base is an important factor in the durability of the denture structure. Most of the adhesive bonding of the metal framework to the denture base material depends on mechanical fitting.



The need of rebasing are governed by factors like pattern of residual ridge resorption, vertical / horizontal changes in the basal seat area and changes in the edentulous maxilla / mandible. From this survey it is seen that 88% of practitioners were aware about denture Rebasing and the methods used to rebate dentures.



These problems are usually not a simple change in the occlusal vertical dimension. It also can result in a chance in the horizontal relation of the dentures to each other and their basal seats. A loss of vertical dimension will automatically move the mandible to a more forward position in relation to the maxillae. We must not overlook the unpredictability of bone morphological changes.



Clinical procedures for rebasing include open mouth technique, closed mouth technique, functional methods, chair side technique. Laboratory procedures for rebasing include articulator method, jig and flask methods. Most of the practioners were convenient with the flasking method.

Within the limitations of this study, it is suggested that a denture base resin rather than a reline material should be selected for repair of a removable denture with a base metal framework. Also, as preprocessing for bonding with the denture base resin, the MDP treatment is recommended, regardless of the metal type.

It has been reported that self-cured/auto-polymerized acrylic resins leach out higher quantities of residual monomer than heat-cured denture base during their investigation found greater quantities of methyl methacrylate in saliva of the individuals who were wearing dentures made up of self-cured/auto-polymerized denture base resins. Kedjarune *et al*. stated that the quantity of the residual monomer was actually dependent upon the method of polymerization and the powder liquid ratio used during mixing of the material. They recommended that it must be ensured that the amount of residual monomer is reduced before insertion of the dentures and suggested that the practitioners recommend to their patients that newly made dentures are not to be worn overnight so as to avoid mucosal irritation caused due to leachable residual monomer.

From the survey conducted, it can be observed that 88% of the practitioners are aware of the rebasing in complete dentures. Heat cure acrylic is commonly preferred by the dental practitioners for rebasing the dentures

Conclusion

Although the denture base resin and metal framework are substantially joined using a mechanical retentive device, additional chemical bonding to the framework is necessary in the case of repairs. When using a metal base as the framework, air-abrasion followed by treatment with an acidic functional monomer is a well-known and useful method for mechanical

and chemical adhesions between the metal and the resins. Therefore the above study concludes that dentists evaluate their expectations and satisfaction differently regarding the same denture therapy.

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