



Research Article

Assessment and Attitude towards using Cement Bases under the Restoration among Dental Students

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ABSTRACT
The aim of the survey is to know about the attitude towards intermediate bases in restoration among dental students. The objective of this study is to understand and evaluate the usage of intermediate bases in restoration among dental students. Dental cement is defined as a substance that hardens to act as a base, liner, restorative material, or adhesive to bind devices & prostheses to tooth structure or to each other. An acid base reaction of an intermediate bases occurs with the formation of a metal salt which acts as the cementing matrix. Dental cements are used for a variety of dental and orthodontic applications, including use as luting agents, pulp- protecting agents or cavity-lining material. This study is useful to analyze the knowledge and attitude on using intermediate bases in restoration.
Keywords: Cement bases, restorative material, rubber dam, post-operative sensitivity.

INTRODUCTION

Cement bases are a layer of dental cement material, sometimes containing medication that is applied to the bottom of a prepared tooth cavity to protect pulp [1]. Cement bases were used to restore teeth posing in a danger situation to the tooth and it also allows for the occurrence of postoperative sensitivity. Based on the responds of pulpal dentine complex which depends on the remaining dentin thickness, cement bases are placed so that it will promote the formation of reparative dentine to prevent from pulpal damage. Cement bases are not only meant for thermal and chemical injuries, it helps to resist the forces applied during condensation of a restorative material. Cement bases are considered as restorative substitutes for the dentin that was removed either by decay or by cavity preparation and encourages the recovery of the injured pulp. The present study was conducted to know about the attitude towards placing cement bases under the restoration among dental students.

METHODOLOGY

A questionnaire was framed and distributed among dental students of three different dental colleges to assess the knowledge and attitude of placing cement bases under the restoration. 300 questionnaires were manually filled by them. Data was collected and recorded.

RESULTS

In our study, 60 % they place on pulpal floor, 5% on axial wall and 35% on both axial wall and pulpal floor. 41 % moderately agree and 47 % strongly agree and 12 % neutral for necessity of cement bases. Respondents says 37 % of 1 mm thickness whereas 29% for 1.5 mm, 27% for <0.5 mm and 7% for 2mm thickness of cement bases. 73%

says that cement bases plays major role as pulp protection, 14 % for biological protection, 9 % for thermal and 4 % for physical protection.

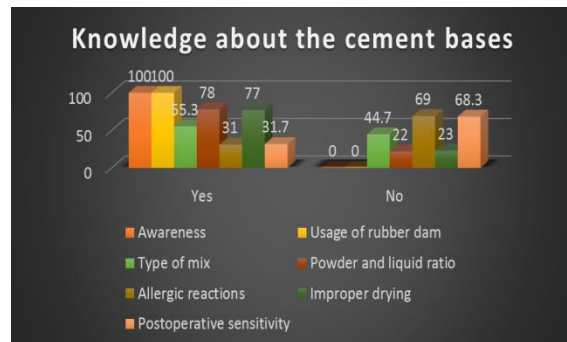


Figure 1: knowledge about the cement bases

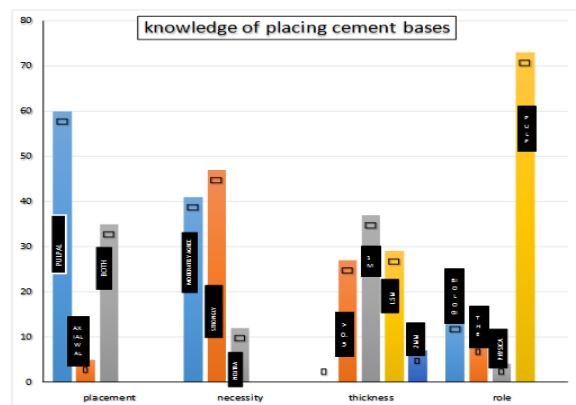


Figure 2: knowledge of placing cement bases

DISCUSSION

Bases and liners are believed to provide protection against marginal leakage, affording the tooth pulp protection and post-operative comfort[3].Dental students



have been taught in Operative dentistry curriculum to use cavity liners and bases under direct dental restoration as an essential procedure for pulp protection [4,5].

In this study, 100 % were aware about cement bases placing under the restoration and also about usage of rubber dam while placing the cement bases under the restoration. 77 % says that improper drying of cavity will affect the restoration whereas 23 % says that improper drying will not affect the restoration. In previous studies, around 43.4% students says that moisture control poses mild effect on choice of amalgam restoration whereas 52.1% students says that rubber dam placement has no effect on choice of amalgam restoration [6]. 55.3 % respondents believe in the type of mix will alter the reaction and 44.7 % respondents does not believe in the type of mix. 78% agree powder and liquid ratio is necessary for manipulating cement bases whereas 22 % respondents do not believe in powder and liquid ratio necessity for manipulating cement bases. 31 % have faced allergic reactions during the placement of cement bases under the restoration. 69 % have not faced any allergic reactions. 31.7 % says that applying cement bases will reduce the postoperative sensitivity and 68.3 % says that applying cement bases will not reduce the postoperative sensitivity. In previous studies, 11 % have shown preoperative sensitivity were encountered while placing cement bases under the restoration despite they had given extra care for pulp protection [6].

Similarly 47 % strongly agree, 41 % moderately agree and 12 % are in neutrally agree for necessity in placing cement bases under the restoration. Around 60 % for pulpal floor, 5 % for axial wall and 35 % will place in both pulpal floor and axial wall. In relation to placement of lining cement on whole exposed dentin on the floor or axial wall, 10 % applies on the deepest part and rest 90% applies on the whole exposed dentin [7]. Respondents says 37 % of 1 mm thickness whereas 29% for 1.5 mm, 27% for <0.5 mm

and 7% for 2mm thickness of cement bases. 73% says that cement bases plays major role as pulp protection, 14 % for biological protection, 9 % for thermal and 4 % for physical protection.

CONCLUSION

Based on the results of this study we came to know that 100% were aware about cement bases and around 85% of the operator should be trained in their pre-clinical sessions in order to know about the proper knowledge in placing the cement bases. Further survey has to be done to know more about the knowledge of placing cement bases.

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