



**“Efficacy of conventional method of caries removal and
chemomechanical method in reducing cariogenic flora in primary
molars and its effect on behavior of pediatric patient. A
comparative study.”**

by

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Abstract-

Background and objectives-

In children and patients with dental anxiety, caries removal by means of conventional instruments is often associated with discomfort. A possible rise in temperature during excavation, which might cause an irreversible damage to the pulp tissue, poses an additional problem. An alternative method to conventional caries removal by means of rotary instruments is the use of chemomechanical techniques which can overcome this problem. Therefore the purpose of the study was, to determine the clinical efficacy of CarisolvTM in reducing the cariogenic flora. And to assess its effect on child behavior before and during the procedure. Thereby reviewing its application and scope in pediatric dental patients.

Methodology-

The study was carried out in Dept. Of Pediatric Dentistry S D M Dental College, Dharwad. 60 primary molars of 30 children were selected from the Department OPD, having either deciduous dentition or mixed dentition. The patients having at least 2 primary molars with active cavitated carious lesions involving the occlusal surface in different quadrants were selected for the study.

60 teeth were divided into two experimental groups of 30 teeth each. In group A, carious tissue was excavated by the low speed air roter handpiece and conventional spoon excavator, and in group B, carious tissue was excavated by the CarisolvTM kit. Behavior scores for each group were determined with Wright's modified Frankel's behavior rating scale before and during the treatment.

After the complete caries excavation the dentin samples were collected from each tooth and microbial culture was done to determine Total Bacterial count and Lactobacilli count. .

Results –

After the statistical analysis it was observed that the patients showed more acceptable behavior during the caries excavation with CarisolvTM method ($P < 0.05$) The results also indicated that there was a reduction in Total Bacterial Count after Caries excavation with CarisolvTM method as compared to the conventional method.

Conclusions –

The CarisolvTM method of caries excavation seems to be a patient friendly and noninvasive procedure which causes significantly more cooperative behavior when used in the Pediatric dental patients and also reduces the caries producing bacteria.

Key words- CarisolvTM; Cariogenic flora; Behavior; Chemomechanical caries excavation; Mechanical caries excavation