Clinical and Radiographic Evaluation of Pulpotomized Primary Molars Restored with Stainless Steel Crown and Amalgam

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Abstract

Statement of Problem: Pulpotomy is the most common pulp treatment in primary teeth. Final restoration of the pulpotomized primary molar can affect the success rate of treatment.

Purpose: The aim of this study was to evaluate the success rate of formocresol pulpotomy in primary molars restored with stainless steel crowns as compared to those restored with amalgam.

Materials and Method: In this randomized clinical trial study, 110 primary molars to be treated with pulpotomy were treated by a conventional pulpotomy technique. Then these teeth were randomly divided into 2 groups: amalgam and crown. 55 teeth were restored by stainless steel crown and 55 by amalgam. The clinical and radiographic evaluation was done at 6-12-24 months. The data were analyzed by Exact Fisher test.

Results: During the 6 months of evaluation, no clinical and radiographic failure was seen. In the 12 months of follow up in the amalgam group, 1 case showed swelling and furcal radiolucency. During the 24 months of evaluation, mobility was seen in 2 teeth in the crown group, and in the amalgam group radiolucency was seen in 1 case, mobility in 1 case, and internal resorption in 1 tooth. Exact Fisher test showed that there was no significant difference in the success rate of pulpotomized molars restored by stainless steel crown and amalgam.

Conclusion: If the tooth is selected correctly for pulpotomy, SSC and amalgam restoration can be used as the final restoration.

Key words: Formocresol, Pulpotomy, Restoration, Stainless steel crowns