

**KEKUATAN PERLEKATAN GESER ANTARA SEMEN RESIN
DENGAN DENTIN YANG DIULASI DAN TIDAK DIULASI
DENTIN CONDITIONER
(Penelitian Laboratorium)**

***SHEAR BOND STRENGTH BETWEEN RESIN CEMENT AND
DENTIN WITH AND WITHOUT THE APPLICATION OF
DENTIN CONDITIONER
(Laboratory Research)***

ABSTRACT

Background: Preparation of dentine in fixed partial denture can causing opened dentin tubules and may increasing tooth sensitivity. When dentine is prepared during fixed partial denture preparation, the surface is covered by a smear layer that adheres weakly to the underlying dentine. Dentine conditioning with dentin conditioner that contain polyacrylic acid 10% can removes the smear layer without significantly etching the dentin. The use of dentin conditioner is also to reduce sensitivity that may happen during preparation. Resin cement has gained great popularity in luting procedure of fixed partial denture restoration. The main role of this cement is to obtain retention of the fixed partial denture.

Purpose: The purpose of this laboratory research is to study the shear bond strength of resin cement on dentin with and without the application of dentin conditioner.

Materials and Method: Fourteen samples of human extracted permanent premolar teeth were divided into two groups. Each group consisted of seven samples. Group A was treated with the dentin conditioner. Group B was treated without the application of the dentin conditioner.

Result: The average shear bond strength in group A is 2.98 MPa, whereas that group B is 4.23 MPa.

Conclusion: There is a significant difference between both group and the shear bond strength of resin cement on dentin without the application of the dentin conditioner is higher than with the application of the dentin conditioner.

Keywords: resin cement, dentin conditioner, shear bond strength