**ID: 3373**

**Congress: 12th International Congress of Iranian Academy of Restorative Dentistry 24-26 October 2012 Tabriz-Iran**

**Title:** Evaluation the effect of canal dentin treatment with Er,YAG laser on bond strength of cemented FRC posts with self adhesive resin cement

**Authors:** Dr Maryam Beheshtirouy*, Dr Maryam sadat Mirtorabi**

*Assistant Professor of Operative Dentistry, Hamadan Dental Faculty (09143142492) /100075 beheshtirouym@yahoo.com

**postgraduate student of Operative Dentistry, Hamadan Dental Faculty (09122682982) /134569 maryam_mirtorabi@yahoo.com

**Abstract:** Background and Aim: Nonmetallic tooth-colored posts adhere to canal walls by resin cements. Better retention and distribution of stress result from proper conditioning of canal wall. The purpose of this study was to evaluate bond strength of D.T. Light - post bonded with self adhesive resin cements to Er:YAG lased dentin in different regions of root canal.

**Materials and Methods:** Thirty teeth (maxillary canine & central) were decoronated 1mm above CEJ. 24 hours after conventional root canal filling process, post space was prepared using specific D.T. Light post drills.

Teeth were randomly divided into two groups. In the first group, canal wall was lased with Er YAG laser beam, and other without any additional treatment. D.T.Light- post was inserted in each subgroup using dual cure self etch self adhesive cement (maxcem elite).

The root length was divided into 3 equal sequential sections; each section submitted to push-out test in universal testing machine. Statistical analysis of the bond strength was performed using ANOVA and post hoc tests with p<0.05 as the level of significance.

**Results:** Significant difference in bond strength values were found among groups (P=0.001).

Lowest bond strength values obtained in apical and Highest bond strength obtained in cervical section.

**Conclusion:** Bond strength of D.T Light- post to lased canal wall dentin is higher than others. Bond strength values decreased from cervical to apical in lased or nonlased samples, but this was significant in lased sections only.

**Bond strength; self adhesive resin cement; FRC post, Er:YAG laser.**

**Presentation:** Poster