Abstract: Introduction and aim
This study is aimed to determine the effect of root dentin surface treatment on fracture resistance of endodontically treated tooth which is restored with fiber post.

Materials & methods
In this experimental study, 84 single canal premolars is selected and their crown is sectioned to the length of 14mm. Teeth are endodontically treated, obturated by gutta percha and randomly divided in to 7 groups. In G1, 9mm of gutta percha is removed and fracture resistance of root is evaluated. In G2-G7, after removing guta percha, canal is irrigated sequentially by distilled water, 5% sodium hypochlorite for 15sec, 17% EDTA for 60sec, 5% sodium hypochlorite for 15sec, 17% EDTA for 60sec, 37% phosphoric acid for 15sec, 5% sodium hypochlorite for 15 sec followed by 10% ascorbic acid for 15sec. Then 5mm of root apex was mounted in acrylic resin and stored in incubator for a week. The samples were thermocycled (500cycles) and their fracture resistance was assessed by universal testing machine with speed of 0.5mm/min. Data were analysed by Kruskal-wallis test and SPSS software.

Results
In different groups, there was no significant differences between the mean fracture resistance of endodontically treated teeth restored with fiber post (P=0.114).

Discussion and conclusion
None of the root dentin surface treatments had the ability of improvement in vertical root fracture resistance of endodontically treated teeth restored with fiber post.

Root fracture resistance, Dentin surface treatment, Endodontically treated teeth, Fiber post, Chemical irrigants.

Presentation: Poster