### Presenting Authors

- **Zahra Khamverdi, Loghman Rezaei-Soufi, Shahin Kasrei, Shiva Rostami**

### Title

**The effect of Epigallocatechin gallat on the shear bond strength of composite resin to bleached enamel: An in-vitro study**

### Abstract

The aim of the present study was to evaluate the effect of Epigallocatechin gallat (EGCG) on the shear bond strength of composite resin to bleached enamel.

**Materials and Methods:**

- Ninety enamel surfaces were divided into 9 groups as follows:
  - **G1:** control (no bleaching)
  - **G2:** bleaching
  - **G3:** bleaching and storage for seven days
  - **G4-6:** 600, 800, and 1000 µm EGCG-contained solution application after bleaching respectively for 10 minutes
  - **G7-9:** 600, 800, and 1000 µm EGCG-contained solution application after bleaching respectively for 20 minutes

- The specimens were bleached with 30% hydrogen peroxide gel and were bonded in all groups.

- Shear bond strength of samples was measured.

- Data was analyzed using the two-way ANOVA and Tukey HSD tests (α=0.05).

**Results:**

- Maximum and minimum mean shear bond strength were observed in G1 and G2, respectively.
- Reduction of bond strength in G2 was significant compared with other groups (P<0.001).
- There were no significant differences for main factors "concentration" and "duration of application" and their interactions (P>0.05).

**Conclusion:**

Using EGCG could significantly increase bond strength of composite to bleached enamel.

- **Antioxidant, Tooth bleaching, Green tea, Epigallocatechin gallat, Shear bond strength**

**Presentation:** Oral