

Kurumunuz aracılığıyla erişin

## Başlık

The Effect of Fiber Placement or Flowable Resin Lining on Microleakage in Class II Adhesive Restorations.

## Yazarlar

[Belli, Sema](#); [Orucoglu, Hasan](#); [Yildirim, Cihan](#); [Eskitascioglu, Gürçan](#)

## Özet

**Purpose:** The aim of this in vitro study was to evaluate the effect of two fibers (polyethylene or glass) and a flowable resin liner on microleakage in Class II adhesive restorations. **Materials and Methods:** Class II adhesive cavities were prepared on mesial and distal surfaces of 40 extracted sound human molars. The cavity margins were below or above the CEJ. The teeth were randomly divided into four groups according to the restoration technique: group 1: restored with a resin composite (AP-X, Kuraray) in bulk after SE Bond (Kuraray) treatment; group 2: flowable resin liner (Protect Liner F, Kuraray) was used before composite restoration; in group 3, a polyethylene fiber (Ribbond) and in group 4, a glass fiber (everStick NET, StickTech) was placed into the bed of flowable resin before composite restoration. Samples were finished, stored in distilled water for 7 days at room temperature, and then thermocycled for 300 cycles between 5°C and 55°C. After sealing the apices, the teeth were varnished within 1 mm of the margins and placed in 0.5% basic fuchsin dye for 24 h at 37°C. After rinsing, the teeth were sectioned longitudinally through the restorations and microleakage was evaluated with a stereomicroscope. Marginal penetration was scored on a 0 to 4 scale, and the data were statistically analyzed using Kruskal-Wallis and the Mann-Whitney U- test. **Results:** Flowable resin, everStick NET, and Ribbond THM used in combination with flowable resin significantly reduced leakage at occlusal margins in cavities with enamel margins ( $p < 0.05$ ). When the leakage values on cervical dentin margins were evaluated, there was no statistically significant difference among the tested groups ( $p > 0.05$ ). **Conclusion:** Use of flowable composite alone or in combination with polyethylene or glass fibers reduces occlusal leakage in Class II adhesive cavities with enamel margins.

## Konular

[DENTAL resins](#); [FIBROUS composites](#); [DENTAL adhesives](#); [DENTAL materials](#); [DENTAL fillings](#); [DENTAL research](#)

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