Objective: The purpose of this study was to evaluate in vitro the microleakage of a newly introduced sealant.

Methods: Thirty extracted caries-free, unrestored human posterior teeth were used for the study. Mesial and distal proximal boxes were prepared on each tooth. The Gingival margin of the class II mesial box ended 1 mm below the C.E.J and Distal box ended 1 mm above the C.E.J. All the teeth were restored with Esthet-X micro matrix restorative composite following the manufacturer's instructions. Appropriate diamond burs and Enhance(Dentsply Caulk) were used for finishing. All samples were randomly assigned to three groups of ten each. Group A was sealed using Biscover( Bisco), Group B using Seal and Shine( Pulpdent) and Group C using Permasea( Ultradent). The sealants were applied according to the manufacturers' instructions. All the teeth were thermocycled for 300 cycles between 5_ -55_c. and were immersed in 0.5% aqueous basic fuchsin dye for 24 hr at 37_c. Each tooth was sectioned mesiodistally through the restoration using the Isomet slow speed saw. The extent of dye penetration was scored under a stereomicroscope (40% magnification) by two blinded evaluators. These scores were compared across the three groups using multivariate linear regression models that adjusted for differences between and within evaluator.

Results: In comparison of the microleakage below the CEJ, Group B had the least microleakage. This was statistically significantly less than Group A (p < 0.001), but only marginally less than Group C (p =0 .07). Above the CEJ, there was also a statistically significant difference
between Groups B and C ($p = 0.002$).

**Conclusion:** The use of Seal n Shine above the CEJ had less microleakage compared to the other products,

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