

Effect of Silver Diamine Fluoride on Reducing Fungal Adhesion on Dentin

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Abstract : Background and Purpose: Silver diamine fluoride (SDF) is used to prevent and arrest dental caries. The aim of this study is to evaluate the effect of SDF on reducing *Candida albicans* adhesion on dentin. Materials and Methods: Bovine dentin disks (6×6 mm) were cut by Isomet and polished using grit silicon carbide papers down to 2000 in order to obtain flat dentin surfaces. Samples were divided into two groups. The first group (SDF group) was treated with 38% SDF for 3 min, while the other group (control group) did not undergo SDF treatment. All samples were exposed to *C. albicans* suspension, washed after 6 hours incubation at 30 °C before to be tested using XTT (2,3-Bis-(2-Methoxy-4-Nitro-5-Sulfophenyl)-2H-Tetrazolium-5-Carboxanilide) and real time PCR approaches. Statistical analyses of the results were performed at the significance level $\alpha = 0.05$. Results: SDF inhibited *C. albicans* adhesion onto dentin. A significant difference was found between the SDF and control groups in both XTT and real time PCR tests. Conclusion: Using SDF to arrest the caries, could inhibit the *Candida* growth on dentin.

Keywords : silver diamine fluoride, dentin, real time PCR, XTT

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