ABSTRACT

**Background**: Dentinal hypersensitivity (DH) is a painful clinical condition and is characterized by pain arising from exposed dentin in response to various stimuli. Various treatment modalities are available to treat dentinal hypersensitivity which include at-home and in-office treatment. At home treatment generally consists of a variety of dentrifices containing different constituents like strontium chloride and bioactive glass (Novamin). These agents cause occlusion of dentinal tubules thereby reducing hypersensitivity. **Purpose**: This study was to evaluate the effects of different desensitizing dentrifices on dentinal tubule occlusion by scanning electron microscopy (SEM) of strontium chloride and bioactive glass (Novamin) pastes in the treatment of dentine hypersensitivity (DH)

**Methods**: sixteen extracted specimens from bovine incisors teeth with randomized into 2 groups (n=8). The crowns were removed from the root and the crown were sectioned longitudinally into two parts (in a mesiodistal direction). The cervical tooth were resulting in two samples per tooth. Dentinal tubules were exposed and the samples provided a 4 mm x 4 mm area of exposed dentinal tubules. Group 1 (treated with strontium chloride), Group 2 (treated with bioactive glass (novamin)). After each treatment for seven days, tubule occlusion on dentin were analyzed by scanning electron microscopy (SEM). The data were analyzed using “mann-whitney test” (p<0.05). **Result**: Groups bioactive glass (novamin) showed tubule occlusion highest when compared with groups strontium chloride. **Conclusion**: bioactive glass (novamin) paste showed tubule occlusion highest with strontium chloride

**Keywords**: Bioactive glass, dentin hypersensitivity, dentinal tubules, strontium chloride