



DOI: <http://dx.doi.org/10.21270/archi.v5i0.1925>

Painel 13 - Comparison of *in vitro* erosive protocols for dentine to non-cariou cervical lesions: analysis of mechanical properties and surface gloss

Moda MD*, Fagundes TC, Bresciani E, Dos Santos PH

Universidade Estadual Paulista Júlio de Mesquita Filho – Faculdade de Odontologia de Araçatuba / FOA-UNESP, Araçatuba - SP

Objectives: To compare the mechanical properties and surface gloss of bovine dentine after *in vitro* erosive protocols to human dentine with noncariou cervical lesions (NCCL). **Methods:** Blocks of cervical dentine were used: sound human dentine (n=10), human dentine with NCCL (n=10), and bovine dentine (n=30). Twenty bovine blocks were submitted to two erosive protocols (n=10/protocol). In the first protocol, samples were demineralized with a hydrochloric acid pepsin solution (HCl - pepsin) over 9 days (6 × 2 min/day, pH 1.6), treated with a trypsin solution (6 × 10 min/day), and then brushed (2 × 15 s/day) after the first and last trypsin treatment. In the second protocol, samples were demineralized with 2% acid citric (4 × 5 min/day, pH 2.8) and brushed (4 × 15 s/day) after each erosive cycle. Samples were analyzed in order to obtain Martens hardness values (HMV), elastic modulus (Eit*), and surface gloss. **Results:** Although values on the mechanical properties of dentin submitted to erosive protocol HCl - pepsin showed differences to human dentin with NCCL (p<0.05), approached more compared to the erosive protocol citric acid. The bovine dentine that underwent erosive protocols and the human dentine with NCCL presented similar surface gloss values (p>0.05). **Conclusion:** The HCl - pepsin protocol applied in bovine dentine was able to accurately mimic mechanical properties and surface gloss of human dentine with NCCL.

(Apoio: FAPESP 2014/11734-8 for financial support)