

EFFECT OF TOBACCO-TREATED *MG63 OSTEOLAST* ON HUMAN PULP CELLS
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Objective: The objective of this study is to determine the effects of tobacco products on protein concentration and growth of *MG63 osteoblasts* and the effects of the bacterial cells and culture supernatants on human pulp cells. The study was designed to observe the effects of *P.gingivalis* grown in four different tobacco solutions such as CSC (cigarette smoked condensate), nicotine (chewing tobacco), and DST (dissolvable smokeless tobacco) strips, and in the media control only without tobacco products. **Methods:** *MG63 osteoblast* was grown in BHI-YE (Bacteria Heart Infusion-Yeast Extract) and hemin-vitamin K. In addition, *MG63 osteoblast* was grown in BHI-Y-E containing nicotine, CSC, and DST. Human pulp cells were grown in media containing BGS (Bovine Growth Serum) and washed. The pulp cell cultures will be assayed for cytotoxicity and the supernatants will be assayed for cytokines and MMP expression. **Results:** The protein assays was performed using a microplate spectrophotometer and SoftMax Pro 5.2, and we observed that nicotine and DST treated cells had significantly less protein than control cells, however, CSC treated cells had significantly more protein. The undiluted control had significantly less protein than the tobacco-treated supernatants. **Conclusion:** Based on the previous experiments, we speculate that the additional protein in the undiluted CSC cells and tobacco-treated supernatant may stimulate more effect on human pulp cells than the control, nicotine or DST treated cells or the control supernatant.