Noble metals like Au, Ag, Pd and Pt dental alloys are widely accepted for dentistry use due to their high corrosion resistance; yet, the elevated costs and lack of aesthetics have led to search for other options. Porcelain fused to metal, where metal is a nickel or cobalt based alloy has been a good alternative for dental restorations since it combines the mechanical resistance of the metal and the aesthetics appearance of the porcelain. Ni alloys have been preferred due to their thermal expansion coefficient that well matches to that of veneering porcelain. However, doubts remain on the biocompatibility of Ni-based alloys due to nickel is the most allergenic metallic element. In the present study cylindrical samples of CoCr and NiCr alloys were obtained by casting in order to evaluate the corrosion resistance by means of open circuit potential, Tafel plots and electrochemical impedance spectroscopy. Corrosion resistance was higher for cobalt alloys. These results show that cobalt alloys can be an option to produce dental restorations.

**Keywords:** CoCr, NiCr, Corrosion resistance

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