

The effect of blood and saliva contamination in implant-abutment interface on preload value after cyclic loading test

Atieh Yazdani

Bogomolets National Medical University, Ukraine

Statement of problem: Screw loosening has been attributed to many factors including decrease in optimum preload value.

Material and method: Eighteen implant supported cement retained framework were fabricated from base metal alloy using conventional casting technique on eighteen straight abutments (Implantium). Abutments were fastened by titanium screws to implant body (Implantium) by 30 Ncm 5 minutes later. Detorque by 30 Ncm torque and re-tightened to 30 Ncm 5 minutes later. Detorque values were measured 10 minutes later. Spacemens were divided to three group's randomly. In group B and S after separating abutments from implants, abutment-implant interface were contaminated with blood and saliva respectively and in control group (C)

no contamination was created. All abutment screws were tightened to 30 Ncm for third time. After cyclic loading test (one million cycles) detorque values for three groups were measured. Data were analyzed by one way ANOVA test.

Result: there was significantly decrease in detorque value before and after cyclic loading for all groups ($P < 0.001$) but the differences between three groups after cyclic loading were not significant ($P = 0.221$).

Conclusion: Within the limitation of this study the difference of preload values and preload loose in clean, blood and saliva contaminated implant-abutment interfaces were not significant

e: dr.atieh_yazdani@yahoo.com