***Comparison the stability of Candida albicans, Streptococcus mutants and Staphylococcus aureus in foreign and Iranian Zinc Oxide Eugenols used for impression in complete prosthesis***

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**Abstract:**

***introduction:*** Impression materials are in contact with blood and saliva, may act as a source of microbial cross-infection in dentistry. The aim of this study was to compare the stability of C. albicans, S. mutants and S. aureus in foreign and Iranian Zinc Oxide Eugenols (ZOE) used for impression in complete prosthesis.

***methods:*** In current lab-trial study with 38 samples, in 3 groups (each group included 12 maxillary edentulous typodent) were contaminated with C. albicans, S. aureus, S. mutans in 0.5 McFarland standard suspensions on reciprocal shaker. They divided into 2 groups, which impressed with Cavex ZOE and Golchai ZOE. Impressions were removed after 5 minutes and after 1 hour, circular discs in 5 mm diameter was cut from the first molar tooth by a sterile cutter, used for viable microbial cell counting. Each disc was separately transferred in a sterile microtube containing 1ml of sterile PBS Finally 100 µl of PBS was spread. After incubation for 2–3 days, bacterial and fungal colonies were enumerated on each plate, and the relative colony-forming units were calculated as the left microorganisms on impression materials.Data were analyzed with SPSS 17 software using Mann-Whitney and kruskal-wallis analytic tests.

***Results:***There was seen a statistically significant differences between 2 impression materials for stability of every tested organisms (P value<0.05). S. mutants in comparison with other 2 microorganisms showed the most stability in all 2 impression materials.

***Conclusion:*** Every 3 microorganisms showed that minimum stability on Iranian Golchei ZOE . So this impression material is better for prevention of cross-contamination.

***Key words:*** Stability, C. albicans, S. mutants, S. aureus, impression material, prosthesis

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