Comparison the Effects of Polish and Glaze Techniques on Color Stability of CERAMCO III

Esfahanzadeh GH1, Kaseb Ghane H2
1 Assistant Professor, Prosthodontics Dept, Islamic Azad University, Dental Branch, Tehran, Iran
2 Post Graduate Student, Prosthodontics Dept, Islamic Azad University, Dental Branch, Tehran, Iran

Abstract

Background and Aim: Discoloration in restorations is one of the most worries of dentists. Polish and glaze are two important and usual techniques for controlling color change of the restorations which can improve visual acceptance of restorations by patients. Therefore, the aim of this study was to investigate comparison the effect of polish and glaze techniques on color of CERAMCO III.

Materials and Methods: Total 20 porcelains were used in this study. Samples were polished using a silicone disk and randomly divided into 2 experimental groups. In group 1, CERAMCO III porcelains received glaze powder. The second group polished with EVE kit. The initial color of samples were registered using spectrophotometry. Then, samples individually placed into Chlorhexidine (0.2%) mouthwash. After 1 month the discoloration was investigated using spectrophotometry. Results were analyzed by T-test.

Result: The discoloration was 0.98±0.08 and 0.81±0.19 in polish and glaze groups, respectively (P=0.62). The “ΔL” index (brightness scale) was 0.21 and better than polish group (P=0.6). The “Δb” index (change in color during preparation) was lower for polish group than glaze group (P=0.55). The “Δa” index discoloration of glaze was lower and better than polish group (P=0.04).

Conclusion: According to the results, both techniques were clinically acceptable for control of discoloration.

Keywords: Glaze, Polish, Discoloration, CERAMCO III

* Corresponding Author Email: saf.k.gh@gmail.com