The Effect of Two Types of Implant Surface Coating on Bone and Surrounding Tissues of Prosthesis with Implant Supporting

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Introduction: Dental Implants used noticeably for treatment of edentulous patients, are foreign bodies installed in direct contact with bone. Therefore, their characteristics should not be harmful for surrounding tissues. Surface characteristics are one of the implant characteristics. This study was performed to evaluate the effect of two types of implant surface characteristics (TPS and SLA) on bone loss, pocket depth and bleeding on probing.

Materials & Methods: This prospective study was approved by ethical committee of Mashhad University of Medical sciences and performed on 56 TPS (Titanium Plasma Spray) and 39 SLA (Sandblasted, Large grit, Acid-etched) implants in Mashhad dental school in 2006. Bleeding on probing, pocket depth and bone loss were evaluated one year after insertion. The data were collected and analyzed using Mann Whitney U test.

Results: Mean bone loss and pocket depth were significantly different between SLA and TPS groups (P=0.003, P<0.001). They were lower in SLA group but no significant differences were found with respect to bleeding on probing (P=0.510).

Conclusion: Based on these findings, it is better to make use of implants with SLA surface coating.

Key words: Dental implant, SLA, TPS.

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