

# Experimental Study of Bone Response to a New Surface Treatment of Endosseous Titanium Implants

Antonio Sanz, R.

Oyarzün, Alejandro

Farias, Daniel

Diaz, Ivan

This study examines a new surface treatment that uses coarse calcium phosphate, which provides the benefits of surface roughening without introducing any foreign materials that may become imbedded in the implants. It is intended to enhance the use of implants in areas of inferior bone quality and quantity, such as the posterior areas of the maxilla and the mandible. Implants placed in the tibia of rabbits were removed after 16 weeks and examined microscopically. Pore sizes examined under the scanning electron microscope met the conditions described in the literature for successful integration. Optic microscopy revealed evidence of bone apposition over the roughened implant surface comparable to that seen in other surfaces. There was a definite absence of fibrous tissue, demonstrating good-to-excellent bone contact with the Restore Resorbable Blast Media implants (Lifecore Biomedical, Chaska, MN). In addition, it appears that the blasting of resorbable calcium phosphate on the machine ti