

## Brazilian Oral Research

Print version ISSN 1806-8324

### Abstract












[ALVES, Sandra Fabiano](#) and [WASSALL, Thomaz](#). In vitro evaluation of osteoblastic cell adhesion on machined osseointegrated implants. *Braz. oral res.* [online]. 2009, vol.23, n.2, pp. 131-136. ISSN . doi: 10.1590/S1806-83242009000200007.

At present the major consideration in planning an implant design is to seek biocompatible surfaces that promote a favorable response from both cells and host tissues. Different treatments of implant surfaces may modulate the adhesion, proliferation and phenotypic expression of osteoblastic cells. For this reason, the aim of the present study was to evaluate the biocompatibility of an implant surface, observing adhesion, cell morphology and proliferation of osteoblast-like cells cultivated on a commercially available titanium dental implant (Titamax Liso<sup>®</sup>, Neodent, Curitiba, PR, Brazil). The implant samples were immersed into an osteoblast-like cell (Osteo-1) suspension for a period of 24, 48 and 72 hours. After seeding the cells, the samples were prepared for analyses through scanning electron microscopy. Based on the surface analysis, the osteoblastic cells adhered to the machined surface after 24 hours in culture. In 48 hours, the cells spread over the implant surface, and after 72 hours a proliferation of cells with large and flat bodies was observed over the machined implant surface. These results demonstrate that the machined titanium surface studied is biocompatible since it allowed adhesion and proliferation of the osteoblast-like cells, in addition to preserving cell integrity and the morphologic characteristics of cells during the studied period.

Keywords : Titanium; Dental implants; Osteoblasts; Osseointegration; Scanning electron microscopy.

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