

TITANIUM DISK SURFACES MODULATE FIBROBLASTS BEHAVIOR

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Titanium (Ti) is the most widely used material in implantology for dental, orthopedic and maxillofacial purposes due to their excellent biocompatibility and mechanical properties. Several data suggest that implant anchorage to bone and soft tissue can be modulated by surface characteristics. Fibroblasts are the soft tissues cells concerned in producing extracellular matrix and collagen. The aim of this work is to compare five different titanium surface treatments in order to investigate which one had the best behavior using Human Fibroblast (HFb) after seven days in culture medium. The expression levels of some adhesion and traction-resistance related genes (COL11A1, COL2A1, COL9A1, DSP, ELN, HAS1, and TFRC) were analyzed using real time Reverse Transcription- Polymerase Chain Reaction (real time RT-PCR). Titanium disks can lead to implant integration promoting the production of protein involved in cell-cell and cell-matrix adhesion and in stress-resistance, required for a good outcome in dental implantology

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