

Biocompatibility of Ti Nanoparticles Synthesis in a rat model: Physical diffusion analysis by SEM.

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Nanoparticles of titanium were obtained by a chemical reduction method, obtaining particles from 10 to 500nm with different synthesis conditions. The size distribution was characterized using transmission electron microscopy and analytical methods involved. For the analysis of the effects of the particles in the organisms of rats, a controlled administration of solution with nanoparticles was included in their legs and the distribution of these metallic particles was studied after three months by scanning electron microscopy on samples obtained by cuts of the sacrificed animals. Results denote a local distribution of the nanoparticles in the near region to the administration zone, with a tendency to cover the leg bone and low residues in the kidney with no apparent toxic effects observed in the rats conduct and conventional response.