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Finite element analysis of post dental implant fixation in drilled mandible sites

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Abstract

Background:

Implant loosening may occur after dental implant placement as a result of the mechanical conditions created around the implant. In this research, the effect of bone drilling conditions on the magnitude of stress created in newly-formed bone around the implant, after placement, was investigated using FEA analysis.

Method:

The simulations performed in this study were based on the three-dimensional (3D) shape of the created cavities, extracted from the drilled cortical bone of the jaws. With this aim, a dental implant model was placed in the jaw and a shell of the 3D bone cavity

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