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Literature Abstract

Immediate nonfunctional versus immediate functional loading and dental implant failure rates: A systematic review and meta-analysis

This study investigated and compared implant survival rates, postoperative infection and marginal bone loss for patients with dental implants subjected to immediate functional loading (IFL) and immediate nonfunctional loading (INFL) protocols. An electronic search undertaken in March 2014 yielded 11 studies that included human clinical trials (7 studies of high risk bias and 4 studies of low risk bias). From these studies, 821 implants received INFL with 17 failures (2.1%), and 1,231 implants received IFL with 26 failures (2.1%). The estimates of relative effect were expressed in risk ratio and in mean difference in millimeters with a 95% confidence interval (CI). The results showed that the procedure (INFL versus IFL) did not significantly affect implant failure rates ($P = .07$), with a risk ratio of 0.87 (95% CI: 0.44 to 1.75). Meta-analysis of the occurrence of postoperative infection was not possible due to the lack of data. No statistically significant effect on marginal bone loss was found between the procedures. The authors concluded that differences between INFL and IFL might not affect implant failure rates and marginal bone loss. However, these results should be interpreted with caution due to limitations of this study that involve confounding factors such as the use of grafting in some studies, different implant sites, different brands of implant, and other uncontrolled variables.

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