

C-1. Effect of the early exposure of cover screws on the survival rate of implants

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The early exposure of cover screws is a common complication of 2-stage implant technique. The exposure of cover screws between stage I and II surgery may cause inflammation in the soft tissues surrounding the implants, and lead to peri-implantitis or marginal bone loss. The purpose of this study was to evaluate the effect of the early exposure of cover screws on implants placed using 2-stage technique. Two hundred and nineteen implants in 77 patients were examined for cumulative survival rate, radiographic marginal bone level change, cause and frequency of the early exposure.

The results were as follows:

1. Twenty-five implants showed early exposure of cover screws with a frequency of 11.4%.
2. Cumulative survival rate of the implants with early cover screw exposure was 88.0%, and that of the implants without cover screw exposure was 96.9%.
3. At the time of stage II surgery and 1 year after loading, the marginal bone loss was greater around the implants with early exposure of cover screws than around the implants without cover screw exposure ($p < 0.05$).
4. There was no statistically significant difference in the frequency of the early exposure according to the implant diameter, gender, and smoking ($p > 0.05$).