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Literature Abstract

Long-term results of mandibular implants supporting an overdenture: Implant survival, failures, and crestal bone level changes

The objective of this study was to summarize the long-term clinical observations of edentulous patients treated with two or three mandibular implant-supported overdentures. From 1984 to 1997, edentulous patients were consecutively admitted for treatment with mandibular implant overdentures. The treatment plan was to connect the dentures to only two implants by means of single ball anchors or bars; in patients with special oral conditions, three implants would be placed. Implant failures were described according to clinical signs at the time of removal and related to the patient's specific history. Crestal bone measurements were obtained using computer software (Dimaxis Pro version 4.3.2, Planmeca). The results showed that 147 completely edentulous patients (45 men and 102 women) with 314 implants were evaluated for 10 to 24 years. Of these, 101 patients were still available for clinical review. Thirteen implants failed during the observation period, resulting in a cumulative survival rate of 85.9% after 24 years. The reasons for removal of implants were peri-implantitis (2 implants) and mobility (11 implants). Mean crestal bone loss was 0.54 ± 0.7 mm per implant site after a mean observation period of 16.5 ± 3.9 years. The duration of loading had a statistically significant effect on crestal bone loss. The authors concluded that the data exhibited a satisfactory survival rate for interforaminal implants. An individual analysis of implants with late failures did not show a typical failure pattern, but loss of implants without signs of infection was more frequent than loss of implants with signs of peri-implantitis.

Ueda T, Kremer U, Katsoulis J, Mericske-Stern R. *Int J Oral Maxillofac Implants* 2011:26:365–372. **References:** 37. **Reprints:** Prof Dr Regina Mericske-Stern, Department of Prosthodontics, School of Dental Medicine, Freiburgstrasse 7, CH-3010 Bern, Switzerland. Email: regina.mericske@zmk.unibe.ch—*Arthur S. Sham, Hong Kong*