Evaluation of Patients Treated With Zygoma Implants Supporting Fixed Prostheses: Preliminary Results From 40 Patients After 2 Years

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Purpose

The aim of this study was to evaluate patients with severely resorbed maxillae clinically and radiographically after 2 years of routine treatment with fixed full-arch prostheses supported by bilateral zygoma implants and conventional frontal implants.

Methods

The study group comprised 40 consecutive patients—24 women and 16 men aged 35 to 81 years (mean 61 years)—who had been referred during 1999 through 2003 to the clinics of Oral and Maxillofacial Surgery and Prosthetic Dentistry for treatment. The inclusion criteria for this group were patients with severely resorbed edentulous maxillae. The group underwent radiographic examinations presurgically with computerized tomography and panoramic radiographs. The implants that were installed—86 zygoma implants and 158 frontal conventional implants—were covered with oral mucosa. After the implants had been allowed to osseointegrate for 6 months, each patient was given a fixed full-arch prosthesis. All patients were radiographically and clinically documented at follow-ups of 1 month, 1 year, and 2 years. At the 2-year follow-up, the prostheses were removed and each implant was evaluated individually.

Results

Prior to loading, 17 (11%) frontal implants were lost. After loading, one additional implant was lost. One zygoma implant and the fixed prosthesis it was supporting were lost during the second year and the remaining implants were left sleeping. Other complications were local mucosal swellings around zygoma abutments and sinusitis problems.

Conclusion

The zygoma-implant method is a potentially valuable alternative in the rehabilitation of severely resorbed maxillae. The zygoma implant, however, would benefit from further technical development, and radiographic techniques for imaging this implant need to be refined. Soft tissue complications demand additional attention. Further clinical evaluation over longer periods of time is therefore necessary.

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