Microstructured dental implants and palatal mucosal grafts in cleft patients: a retrospective analysis.

BACKGROUND: In cleft patients, implant dentistry has become an integral part of oral rehabilitation. However, a lack of keratinized mucosa is found in many cases which may have adverse effects on the long-term success of dental implants with microstructured surfaces. Therefore, the aim of this study was to evaluate whether mucogingival surgery is of value in the treatment of these patients. PATIENTS: Between 1991 and 2002, a total of 35 microstructured dental implants were inserted in 32 cleft patients. In 18 patients, vestibular scars extended to the rim of the marginal mucosa of the implants and the gingiva of the adjacent teeth. To enhance the soft tissue condition, mucogingival surgery was performed using palatal mucosal grafts. METHODS: In May 2002, 29 implants and 16 mucosal grafts were evaluated. Assessment included radiological and clinical parameters. RESULTS: Three implants were lost. Most mucosal grafts showed shrinkage of up to 30%. Clinical and radiological parameters, however, showed results that were very similar to those from non-cleft patients. CONCLUSION: These results support the hypothesis that keratinized mucosal grafts show long-term success in the cleft region as well. Moreover, it may be concluded that a combination of dental implants with a rough surface and palatal mucosal grafts can be recommended for oral rehabilitation of cleft patients.