Grasping the Opportunity

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Tissue-integrated prostheses now provide a viable alternative to conventional reconstructive techniques for selected craniofacial defects. Approaches that use osseointegrated implants are particularly well suited to restoring auricular, orbital, and maxillofacial defects secondary to congenital malformation, trauma, or surgery for neoplastic disease. Craniofacial reconstruction based on the tissue-integrated approach entails a complex series of` interdependent stages. Moreover, patients likely to benefit from this technique present multiple rehabilitative challenges. Such patients require the treatment planning, surgery, prosthesis fabrication, and postoperative management that only a multispecialty team can provide.

Titanium implants were first used for the craniofacial rehabilitation of auricular defects in 1977 by Dr Per-Ingvar Brånemark, The Institute of Applied Biotechnology, Gothenburg, Sweden, and Dr Anders Tjellström, Department of Otolaryngology, University of Gothenburg, Gothenburg, Sweden. This initial extraoral adaptation of the intraoral osseointegration concept provided the basis for the use of this technique in the management of other craniofacial problems. The treatment of hearing impairment utilizing a bone-anchored hearing aid (BAHA) is one such example. By 1991, almost 1,300 patients in 10 European countries had been treated for hearing impairments utilizing a bone-anchored hearing aid.

Based upon the early successful experience in Sweden, multispecialty teams were organized at 24 centers in the United States to execute a prospective study entitled "Percutaneous Implants to Attach Cranio-Facial Prosthesis." The study for the approval of this concept in the United States began in 1988 and involved 145 patients.

The multispecialty teams included anaplastologists, oral and maxillofacial surgeons, otolaryngologists, plastic surgeons, and prosthodontists. The results of the follow-up study of more than 30 months after prosthesis placement were presented to the United States Food and Drug Administration (FDA) and clearance was given on January 13, 1995, for the Brånemark Cranio-Facial Implant to be used in the United States.

We believe that this clearance implies that patients be treated with the same multispecialty strategy that has yielded successful (and often spectacular) results in the prospective study. This cooperative effort, in turn, presents a unique opportunity to develop programs of multidisciplinary training which can provide the integrated

knowledge of treatment planning, surgical procedures, prosthesis fabrication, and postoperative management.

This opportunity to develop multispecialty educational programs should be grasped with excitement and the desire to expand the expertise and knowledge of craniofacial rehabilitation for the ultimate care of our patients.