

RECONSTRUCTION OF THE SEVERELY ATROPHIC MAXILLA WITH ONLY BONE GRAFTING AND IMPLANTS: A CASE REPORT

Walid M. Sadig* & Alagumba L Nwoku**

* Assistant Professor, Department of Prosthetic Dental Sciences, College of Dentistry, King Saud University.

** Clinical Professor, Oral and Maxillofacial Surgery Department, RKH Military Hospital.

ABSTRACT

The management of the severely atrophic maxilla requires special considerations because of the unfavorable biomechanics, surgical, prosthetics and esthetics factors. Therefore, autogenous grafts represent the treatment of choice prior to any implant restorations of such cases. This report presents one case treated in this manner, enabled reconstruction without opening the maxillary sinus or nasal floor. It also restored the vertical and sagittal dimensions of the jaws. Thirty-six months after prosthetic rehabilitation there has been no complication. The postoperative pain from the donor site was minimal and there was no gait deformity observed. The L shaped bone only technique has been found to be a safe, well tolerated procedure with which an implant-retained overdenture was provided with great patient satisfaction.

Key Words: Atrophic Maxilla Bone graft Endosseous Implants.

INTRODUCTION

The use of endosteal dental implants in resorbed maxilla has remained a major surgical and prosthetic problem. Various procedures for reconstructing the atrophic maxilla in conjunction with implants have therefore been suggested for over 15 years. These include the onlay grafting Le-Fort I osteotomy with interpositional grafting and the anterior maxillary osteoplasty with a combination of sinus or nasal floor augmentation.⁽¹⁻⁷⁾ The choice of the technique employed must be adapted to the kind of residual ridge remaining. The atrophy may exist mainly in the sagittal direction, or it may be in the vertical direction. But sometimes there could be a combination of atrophy both in sagittal and vertical directions. The operative procedures may be two staged or the implant placement may be done simultaneously at the time of bone augmentation.^(8,9) Each procedure has

its advantages. For instance, delayed implant placement allows visual inspection of the graft when initial resorption has taken place, and therefore permits the implants to be placed at an optimal length, position and trajectory. However, by postponing implant placement, the mucoperiosteum is invaded during the reentry operation and this leads to further bone resorption. On the other hand initial implant placement may stabilize the bone graft at the host, eliminate another surgical operation and shorten the treatment period. But it is worth mentioning that the two-staged technique shows greater success rate when compared to the simultaneous implant placement.^(4,5,9) In the early 1990's, dental implants attracted the interests of many dentists in the kingdom of Saudi Arabia. Since then, the practice of implant dentistry in the kingdom has grown steadily but not as quickly as it was anticipated.