



# Implant-supported nasal prosthesis. Clinical case report

## *Prótesis nasal implantosoportada. Reporte de un caso clínico*

Renes Saint Louis,\* José Federico Torres Terán,<sup>§</sup> Vicente González Cardín<sup>§</sup>

### ABSTRACT

In our days, functional and esthetic reconstruction is one of the problems most frequently encountered when treating patients with facial defects. This reconstruction entails to choose among rehabilitation materials to use in each case. Extra-oral implants play an important role in prosthetic support, they bear influence into esthetic, functional and psychological aspects, granting better quality of life to the patient. The aim of the present study was to functionally and esthetically rehabilitate the patient as well as improve his quality of life with the use of an implant-supported nasal prosthesis.

**Key words:** Maxillofacial prosthesis, facial defects, nasal prostheses, implants, magnets.

**Palabras clave:** Prótesis maxilofacial, defectos faciales, prótesis nasales, implantes, magnetos.

### RESUMEN

Un reto en el tratamiento integral de pacientes con defectos faciales, es la reconstrucción con fines funcionales y estéticos, que conlleva a la elección de la rehabilitación y material a utilizar en cada caso. Los implantes extraorales juegan un papel importante en el soporte protésico, influyendo en los aspectos psicológicos, funcionales y estéticos, aportando al paciente una mejor calidad de vida. El objetivo de este trabajo es rehabilitar estética y funcionalmente, y mejorar la calidad de vida del paciente ofreciéndole, una prótesis nasal implantosoportada.

### INTRODUCTION

Prosthetic rehabilitation is the means by which an artificial device is placed to substitute an organ lost due to many causes that might be congenital, traumatic or surgical in nature.<sup>1</sup>

The nasal pyramid is a frequent site for location of skin tumors such as basal cell carcinoma, epidermoid tumor and melanoma. These tumors must be surgically treated, and in some cases, security margins can be corrected by means of esthetic surgery. In some cases, to avoid relapse, the defect might be left open.<sup>2</sup>

Technological advances have influenced facial prostheses. After the Second World War, acrylic resins and silicon materials began to be used to manufacture prostheses. With the introduction of bone integration in the extra-oral region many of the retention and stability problems encountered with conventional prostheses were solved; this represents an important advance for the retention of this type of prostheses. Bone integration allows the use of silicon at its full potential, eliminating thus the use of adhesives, securing suitable retention and fine borders, generating better esthetic results and providing more security to the patient.<sup>3</sup>

Systemic diseases which might impair bone metabolism would represent a contraindication

to the use of bone integrated implants.<sup>4</sup> Among these diseases we can count: osteoporosis, fibrous dysplasia, «Paget's disease» or deforming osteitis (*osteitis deformans*), multiple myeloma, psychiatric conditions and uncontrolled addictive behaviors. Other aspects to be considered, are inability to preserve implant hygiene which would compromise diagnosis as well as lack of easy access to the patient in order to preserve suitable maintenance therapy.<sup>5</sup>

Patients who have received radiation treatment must be carefully selected, since they might exhibit lesser rate of success than non-radiated patients. Secondary effects will depend on radiotherapy intensity: with low pre-operative bases, it has been found that local control is improved with a dosage of

\* Graduate, Maxillofacial Prosthesis Specialty.

§ Professor, Maxillofacial Prosthesis Specialty.

Graduate and Research School, National School of Dentistry, National University of Mexico (UNAM).

Received: July 2010.

Accepted: August 2010.

This article can be read in its full version in the following page:  
<http://www.medigraphic.com/facultadodontologiaunam>

34.5 Gy, divided into 15 fractions of 2.3 Gy during 19 days, which would be equivalent to 39.6-44 normally fractioned Gy. In the head and neck, radiation can reach up to 70 Gy in 35 fractions of 2 Gy per session, five times a week, this is to say the treatment would last seven weeks.<sup>6</sup> It is worth mentioning that ideal radiation site should be the head and neck region, otherwise there would be no direct implication to maxillofacial rehabilitation with implants. Hyperbaric oxygenation enhances bone integration success. It is administered before placing the implants. The procedure consists on 20 sessions of hyperbaric oxygen as well as ten additional sessions after implant placement in order to favor bone formation and avoid implant loss.<sup>7</sup>

### HISTORICAL BACKGROUND

Since ancient times, man has tried to restore facial deformations and defects which alter their appearance. Egyptian mummies have been found with artificial noses, eyes and ears. Around 1950, Amboise Pare described the first maxillofacial prosthesis. Maxillofacial prosthesis science is the branch of dentistry that involves esthetic and functional rehabilitation of structures located outside the mouth as well as within it. It employs artificial means whose

objective is not only re-establishing suitable shape and function, but also to preserve remaining tissue in good repair. In 1977, Anders Tjenström (Sweden) expanded the concept of bone-integration to the cranio-facial region, creating thus new possibilities to rehabilitate the face with implant-supported oral-maxillofacial prostheses.<sup>8</sup>

### CASE REPORT

74 year old male patient, born in Capulhuac, State of Mexico. The patient was referred to the Head and Neck Service of the National Cancer Institute of Mexico (Instituto Nacional de Cancerología de Mexico).

Clinical assessment revealed destroyed nasal cartilage as a result of surgical resection of a tumor lesion (*Figures 1 and 2*). The resulting surgical defect was inadequate to satisfy the patient's esthetic requirements and was hindering his social activities. Therefore, nasal prosthetic rehabilitation with different retention means (adhesive and implant-supported) was suggested and pros and cons were carefully explained to the patient.

The patient selected use of an implant-supported nasal prosthesis, manufactured with a base of acrylic resin, medical-grade silicon and magnets.



**Figures 1 and 2.**

Patient with destroyed nasal cartilage after surgical intervention. Defect covered in gauze.

Download English Version:

<https://daneshyari.com/en/article/3173154>

Download Persian Version:

<https://daneshyari.com/article/3173154>

[Daneshyari.com](https://daneshyari.com)