

POSTERS

P3 - EXTRAORAL FIXTURE FOR NASA EPITHESE

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INTRODUCTION

Maxillofacial defects caused by cancer treatment are a huge problem affecting the quality of life of patients. Epithetic solutions are indicated if plastic surgery reconstruction is not a valid option for an extensive defect.

The use of extraoral fixtures as bone anchorage for a nasal epithese represents an alternative to more heavy and more time-consuming surgical reconstruction techniques. Another advantage is that the site can be monitored easily, as for the carcinologic follow-up. It allows a good retention of the nasal epithese and an esthetic result which is satisfying for the patient.

A multidisciplinary co-operation is essential if optimal results are to be achieved.

A 42 years-old woman had underwent a subtotal nasal resection, for a well-differentiated epidermoid carcinoma of the tip of the nose T1NOMO, resected in his totality (Fig. 1). As the anatomo-pathologic analysis of the piece of resection had confirmed the complete character of the tumor resection and no ganglionic metastase, the site of tumoral resection was not irradiated.

Analysis of the preoperative CT-Scan revealed that bone was too thin in the regions of the paranasal areas of the maxilla, which did not allow any fixture placement (Fig. 2). Possibility of bone anchorage was better in the subnasal region of the maxilla (Fig. 3), as well as in the frontal nasal process area (Fig. 4).

First stage surgery: three months after carcinologic surgery, four extraoral fixtures

were placed in the frontal and subnasal areas under general anesthesia (Figs. 5, 6, 7). A resection of the remnants of the nose was performed, in order to allow a better adjustment of the future epithese.

Second stage surgery: four months after the placement of the implants (Fig. 8), a permanent 7 mm high titanium Healing Abutment was placed on each fixture on general anesthesia (Fig. 9). As subcutaneous tissue was abundant, we customized a resin device connected with the Healing Abutment (Fig.10), in order to avoid invagination of cutaneous tissue, and allow a good healing of soft tissues

Prosthetic steps four weeks after second stage surgery, soft tissue healing was good. A thin layer of light body silicone was applied around the impression copings, and wood sticks were placed to allow retention of the second layer (Fig.11). A second layer of plaster was applied (Fig.12) to secure the impression copings in position on removal (Fig.13). On the working model of the patient (Fig.14), a framework made of a gold alloy bar soldered to gold cylinders was constructed and tried on the patient (Fig.15). Then, acrylic framework with 3 retention clips was constructed (Fig.16). A wax nose was sculpted (Fig.17), and the shape of the epithetic nose was designed to match previous aspect (Fig.18). Then, a silicone nose was obtained, colored with pigments to match the skin tones of the patient (Fig.19).

Final result (Fig.20) was qualified as very satisfying by the patient

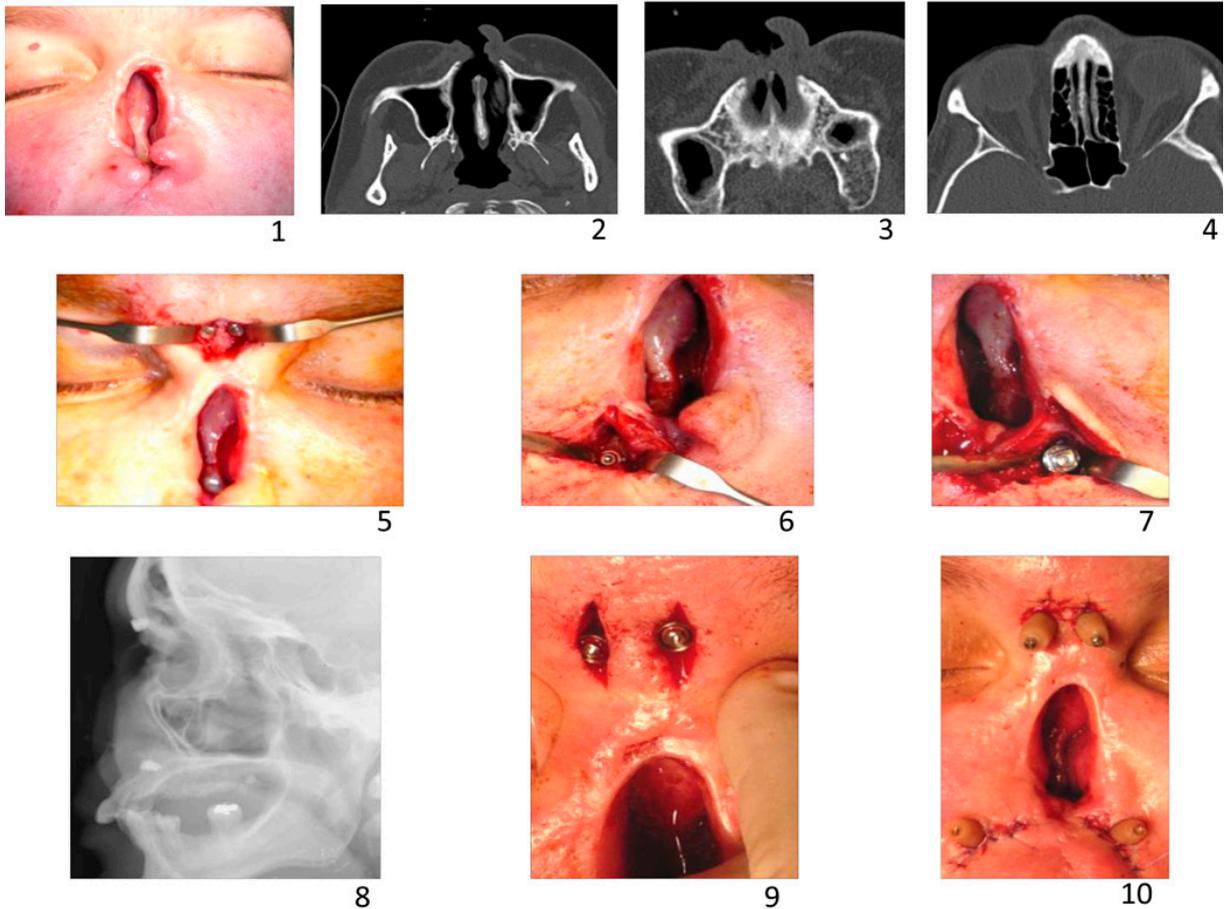
DISCUSSION

Surgical reconstruction following a rhinectomy remains a challenge, due to the necessity to recreate the complex three-dimensional nasal form. Extraoral cranio-facial fixtures, with an average success of 95% in non irradiated patients (1, 2) have made it possible for the nasal epithesis to be considered as a forerunner in the strategies of rehabilitation in carcinologic surgery, allowing a good cosmetic rehabilitation, as well as easy clinical monitoring of the operation site (1, 2).

The soft tissue healing around skin-penetrating endosseous cranio facial implants has been well documented in the literature, and implants placed through the nasal mucosa are frequently complicated by difficulties in maintaining adequate hygiene, persistent crusting of secretions and peri-implant mucosal inflammation (3). In this case, extraoral implants were placed through the skin, in order to avoid these complications. As reported elsewhere (4), satisfaction of the patient was achieved with this technique.

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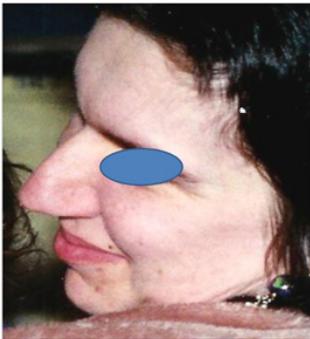
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