Available online at www.sciencedirect.com

ScienceDirect

EJSO 40 (2014) 144–149

EJSO the Journal of Cancer Surgery

www.ejso.com

Educational article

The caudal-lateral inserted transposition flap in reconstructive tumor surgery on the nasal ala

A. Lösler [a,*], C. Kotthoff [a], B. Kruse-Lösler [b]

[a] Department of Dermatology, Fachklinik Hornheide, Dorbaumstr. 300, D-48157 Münster, Germany
[b] Department of Cranio-Maxillofacial Surgery, University of Münster, Waldeyer Str. 30, D-48129 Münster, Germany

Accepted 9 September 2013
Available online 25 September 2013

Abstract

The nasal region represents an important three-dimensional esthetic unit where minimal distortion will be obvious and disturbing. In this regard the reconstruction of the nasal ala in dermatologic tumor surgery may be challenging. We propose the reconstructive option of a caudal-lateral inserted transposition flap for this indication. The principle of this surgical alternative and the long-term outcome is demonstrated in representative cases. The various indications and modifications of this reconstructive principle are discussed and compared to other remodeling alternatives.
© 2013 Elsevier Ltd. All rights reserved.

Keywords: Nasal ala reconstruction; Local flap; Alternative

Introduction

In dermatologic tumor surgery the reconstruction of excision defects on the nose is challenging. Minimal distortion of the skin and the soft tissue in this central and three-dimensional unit may be obvious and estethically disturbing.[1] The selection of the local flap should consider the size and localization of the excision defect, the individual form of the nose, the skin texture and the laxity of the surrounding soft tissues.[2,3] These features especially are important for reconstructions in the nasal ala region.[4] In most of the cases the cranial inserted transposition flap is performed for defect closure.[5–7] But various other options may also lead to satisfying results just as advancement flaps,[8–10] rotation flaps,[11] bilobed flaps,[12,13] island pedicle flaps[14–16] or skin grafts.[17] Due to the surgical procedure of rearranging skin and soft tissues using a local flap for reconstruction the vascularization and lymphatic drainage of the flap might be impeded. Swelling of the flap or development of broad or deep scars deteriorates the esthetic outcome in these cases and surgical scar revision or thinning of the flap is often necessary to improve the functional and esthetic outcome.[18,19] By this reason some authors propose free wound granulation after Moh's surgery of the tumor on the ala nasi or skin grafts for reconstruction.[20] The disadvantage of this treatment strategy is the risk of shrinking effects that might result in asymmetry of the nose, distortion of the rim and the nostril of the nasal ala. Other disturbing side effects might be deep scars or differences in color and texture of the skin.[21]

The most satisfying results in reconstruction of small ore mid-size defects on the nasal ala usually may be reached performing local flaps from the surrounding skin and soft tissues because of the similar texture and color of the skin. Nevertheless the esthetic long-term outcome depends on the optimal individual selection of the flap and in this regard not at least on the skill and creativity of the surgeon.[22]

We introduce a local flap for the reconstruction of the nasal ala which can be used for remodeling the ala and the nasolabial region as a one stage surgical procedure.

* Corresponding author. Tel.: +49 2513287411.
E-mail addresses: andreas.loesler@fachklinik-hornheide.de (A. Lösler), carmen.kotthoff@fachklinik-hornheide.de (C. Kotthoff), losler@uni-muenster.de (B. Kruse-Lösler).

0748-7983/$ - see front matter © 2013 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.ejso.2013.09.017

Methods

For reconstruction of the nasal ala region after tumor resection we present a caudal-lateral inserted transposition flap moving the skin and soft tissues from the nasal sidewall and the cheek into the excision defect. The incision is performed straight or curved from the cranial-medial border of the defect on the nasal sidewall in direction to the medial canthus in a length depending on the sagittal size of the defect. From this point a back cut is positioned in an angle of 60°–90° into the caudal-lateral direction on the cheek to a point at the same level of the caudal border of the excision defect on the ala (Fig. 1). The transversal diameter of the flap should not be smaller than the sagittal diameter of the excision defect on the nose but it can be designed larger, depending on individual features of the patient's anatomy as well as the size and location of the defect. The preparation of the flap should be performed atraumatically and preserve the vascularization on the base and as far as possible on the bottom of the flap too.

After mobilization of the transposition flap and careful stopping of hemorrhage the flap is embedded into the primary defect on the ala. In a second step the secondary defect on the nasal sidewall and the cheek is closed in form of a lazy S-plasty after mobilization of the involved skin on the nasal sidewall and the cheek. In some cases it may be helpful to close the secondary defect after mobilization of the flap as the first step like it is performed in the principle of reconstruction using a bilobed flap. This may facilitate the embedding of the flap into the three-dimensional nasolabial region and the primary defect. Within the remodeling procedure a small Burow triangle excision is positioned on the caudal-lateral side of the primary defect and a tamponade of the nostril should be inserted. For the suturing we use monofile resorbable and non-resorbable strings positioned in two layers. The non-resorbable strings are removed after 7–10 days.

Results

Excision defects on the nasal ala may be covered and aesthetically reconstructed using a remodeling caudal-lateral inserted transposition flap. The long-term outcome usually is very satisfying without distortion of the nose or persisting lymphoedema of the flap. Even the three-dimensional region of the nasolabial fold and ala as an important esthetic unit may be preserved because the flap folds into this preformed bed of the excision defect (Figs. 2 and 3). After the closure of the secondary defect there can be a little tension on the soft tissues of the cheek and the infraorbital region (Fig. 4). This side effect usually disappears within several weeks by adaption of the involved soft tissues. We perform this flap for reconstruction in the nasal ala and nasolabial region since more than 10 years and in more than 300 cases. During this time we had only need for 5 secondary surgical interventions to improve the esthetic outcome of the flap-reconstruction.

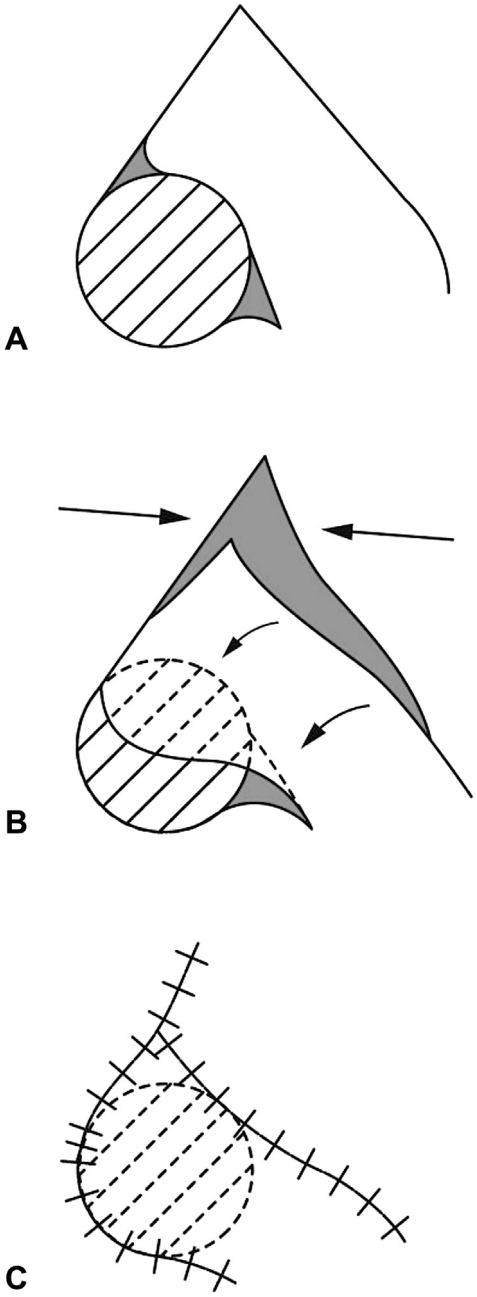

Figure 1. Schematic graphic of the caudal-lateral inserted transposition flap for reconstruction of the nasal ala. (A) Incision line and marking of the Burow-triangles (gray) that have to be removed by modeling the flap into the defect. (B) Insertion of the flap into the primary defect and closure of the secondary defect in a transversal direction. (C) Suture line after defect closure.

Discussion

The caudal-lateral inserted transposition flap represents a useful principle for reconstructions involving the lateral part of the nasal ala.[1] Sherris and Larrabee[23] described

Download English Version:

https://daneshyari.com/en/article/3985202

Download Persian Version:

https://daneshyari.com/article/3985202

Daneshyari.com