



EDITORIAL

## Reconstruction after skin cancer removal: More than just “filling a hole”

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**H**undreds of surgical defects are caused by skin cancer removal every day. All these surgeries may leave scars that change a patient's physical appearance and negatively impact psychosocial functioning. People with facial disfigurement are often stigmatized for appearing different than “normal” and may be considered “dysfunctional” by others<sup>[1]</sup>. In order to minimize these scars, doctors involved with facial repairs after skin cancer removal should have a thorough knowledge of anatomy and develop adequate operative techniques.

Over recent decades, dermatologic surgery has witnessed enormous growth and evolution. In several countries, we dermatologists are the ones who perform most skin cancer removals on the face. However, we need to know our limits and refer our patients whenever we do not feel comfortable restoring a surgical defect. Our aim should always be the patient's wellbeing.

Once we choose to take the responsibility to repair a surgical defect, we should always “respect it”, regardless of its complexity. For the same wound, several different reconstructive options can offer optimal results and should be considered before closing it—*i.e.*, “think twice, cut once”. It is not enough to become proficient with one or two flaps and try to apply them to all defects. By becoming familiar with other techniques, a new perspective is acquired, allowing for options that may better suit the defect and the patient.

Reconstructive algorithms may appear helpful, especially for a beginner. However, understanding the principles of tissue motion is the key for continuous and successful learning. Having a cookbook formula for facial reconstruction will limit one's learning and may not be the best philosophy. Each operative wound is different. The same size defect in the same location on two different noses of different sizes, textures, and shapes will call for distinct reconstructive options. A good reconstructive surgeon assesses the wound based

on the patient's anatomy, wound configuration, the shape and nature of the surrounding facial tissues, and then, perhaps most importantly, the desires and expectations of the patient.

For better and solid learning, being critical with our own results and learning from them is essential. Photographs (pre-, intra- and postoperative) are among the best teachers we may have. By routinely evaluating the photographs, we can continuously learn and improve our surgical skills.

It is important to follow certain surgical principles in skin cancer surgery. I chose a few of my favorites, in the order of importance:

### 1) Eradication of the skin cancer

If all the following principles are respected but cancer is not completely removed, the surgery is worthless. This is why Mohs surgery plays an important role in cutaneous oncology, especially for tumors located on the face. Mohs surgery has the highest cure rates for non-melanoma skin cancer because it evaluates 100% of the surgical margins. Furthermore, it spares healthy tissue leading to smaller defects and scars when compared to conventional excisions.

### 2) Avoid free margin distortion

Surgeries close to the lip, nose and eye should be restored with extra caution. Before incising, one should consider all the vectors created by the repair option in order to avoid free margin distortion. An ectropion, for example, would not only affect aesthetics, but could also lead to functional impairment.

### 3) Contour restoration

Restoring (or maintaining) contour is another essential principle in facial reconstruction. A depressed or elevated scar is more visible to our eyes than a line. Techniques to prevent contour deformities must be used whenever possible.

#### 4) Hiding incisions

Placing the surgical incisions on cosmetic subunit junctions (nasofacial sulcus, for example) or on the skin tension lines is helpful to hide the scars.

Simply “filling a hole” should not be our goal. Restoring facial anatomy and minimizing scars should.

## References

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