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How would you remove these temporal-zygomatic lesions?
Surgical reconstruction of the temporal-zygomatic area using a mandibular Burow's triangle advancement flap

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Informed consent: the patient gave his consent for the publication of this paper.

The case:

A 65-year-old man was referred with two adjacent skin lesions located in the right temporal and zygomatic area. Dermoscopic examination revealed features indicative of two basal cell carcinomas, prompting the scheduling of surgical removal.

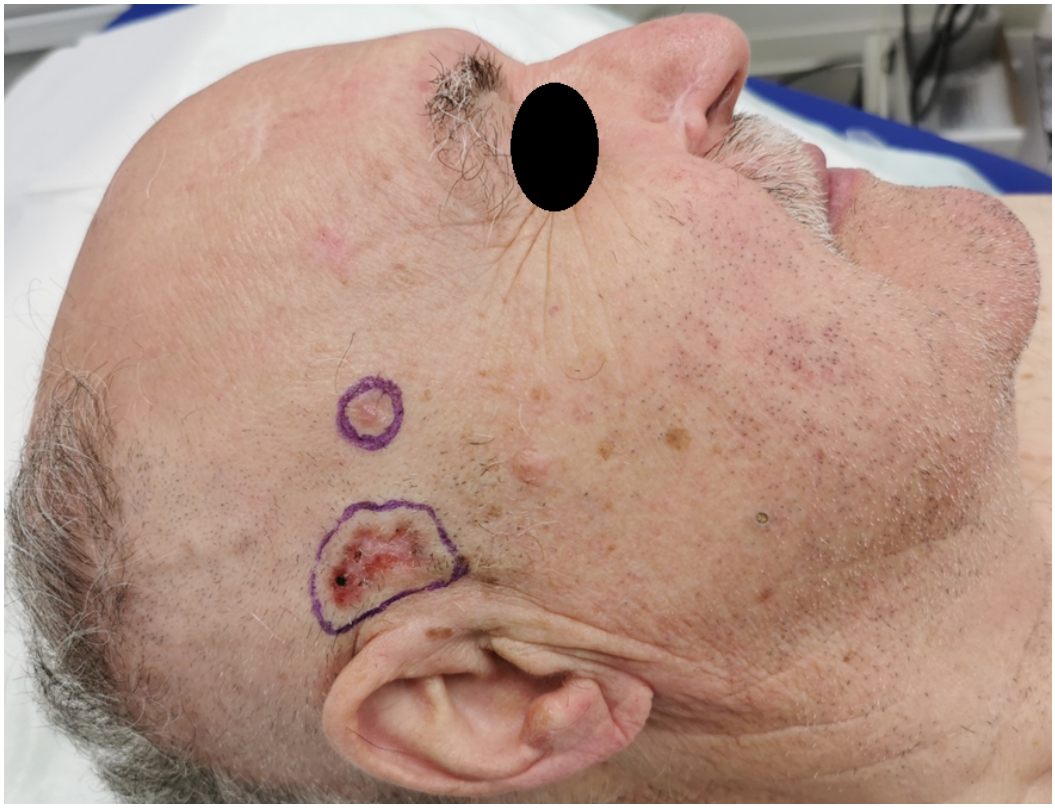

Figure 1. How would you remove these temporo-zygomatic lesions?

Our choice:

We opted for surgical reconstruction using a mandibular Burow's triangle advancement flap.

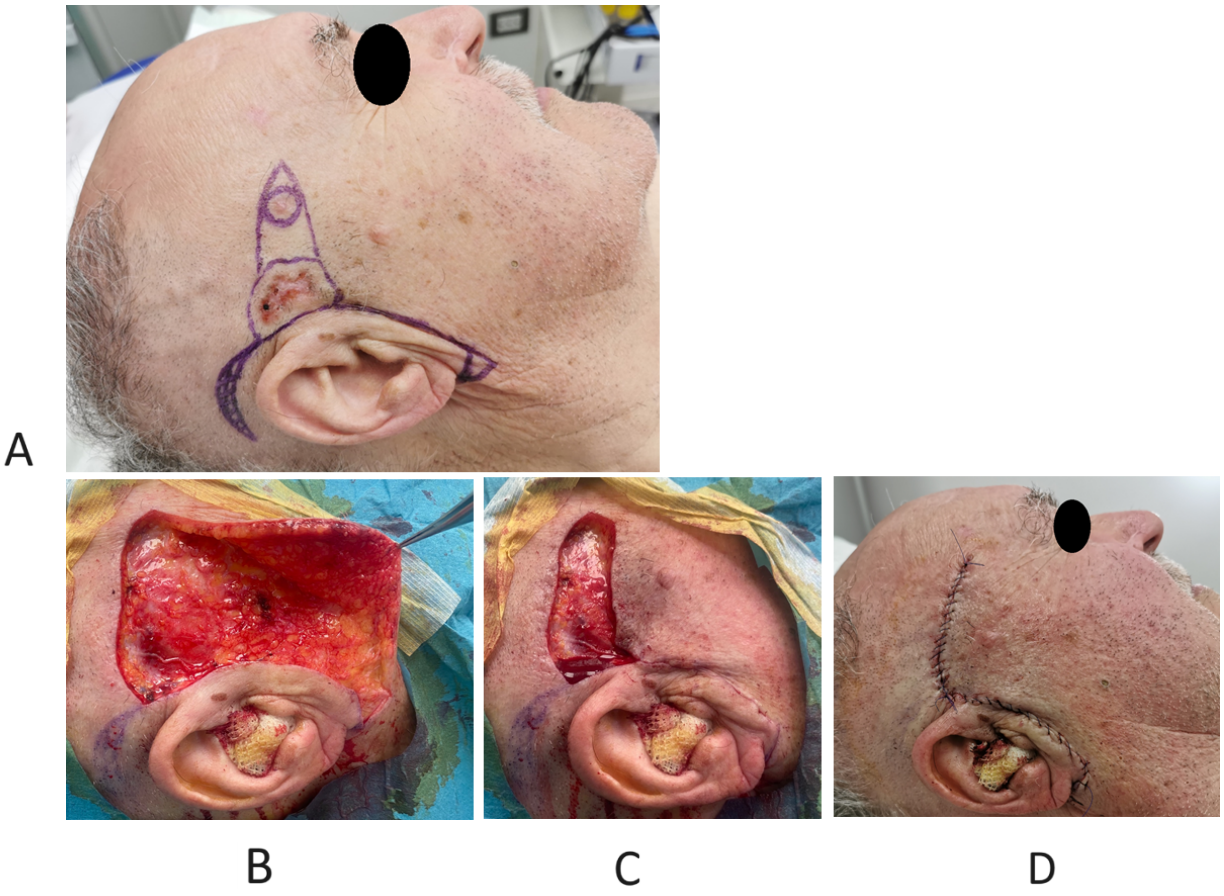

Figure 2. Design (A), excision, flap preparation (B-C) and suture (D).

Comment:

The Burow triangle flap is an advancement flap based on the excision of two opposite triangles of redundant tissue, moving the flap in a single direction [1]. In our case, the two lesions were removed within a single triangle breach in the temporo-zygomatic area (Figure 2 A). Following this, a linear incision was made along the preauricular relaxed skin tension lines (RSTL). The planned flap was then detached at the subcutaneous level and advanced in the caudo-cranial direction to cover the defect in the temporo-zygomatic area and restore its natural contour (Figure 2 B-D). Throughout the procedure, great care was taken to preserve the vascular supply and underlying nerves due to the lesion's proximity to vital structures, potential aesthetic implications, and possible functional consequences.

The excision of a second Burow triangle plays a crucial role in the entire reconstruction process as it allows the removal of redundant tissue on the opposite side of the flap, facilitating flap enhancement [2]. In our case, the Burow triangle was located in the subauricular area to take advantage of this tissue reservoir and better conceal it.

In the event of flap failure to close the breach due to excessive tension, an additional parieto-temporal crescentic advancement flap could have been drawn to provide a significant complement to the completion of the advancement flap (as shown in Figure 2 A). However, in our specific case, we did not employ the recovery crescentic flap as the mandibular Burow's triangle advancement flap alone proved sufficient to effectively restore the post-excision defect, resulting in excellent aesthetic and functional outcomes.

The outcome:

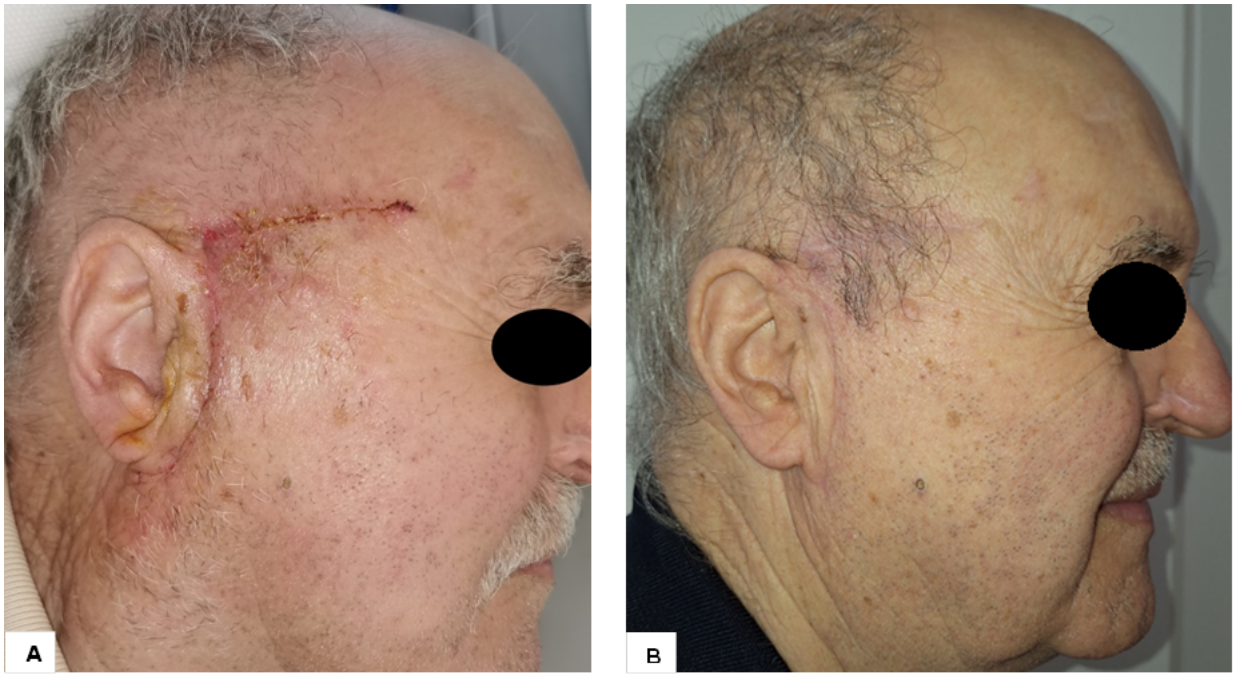

Figure 3. 2-week (A) and 3-month (B) follow-up.

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