Percutaneous ligature of the superficial temporal artery prior to surgical excision and primary closure

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The case

A 78-year-old man presented with a growing lesion on his right temple, clinically suggestive for basal cell carcinoma. Therefore, surgical excision was planned.

How would you remove this temple lesion?

Our choice

We chose to perform surgical excision with primary closure preceded by percutaneous ligature of the superficial temporal artery branches.

A) Surgical design and marking of arterial branches. **B**) Percutaneous ligature of arterial branches through Vicryl 3-0 stitches. **C**) Internal ligature of the severed arterial ends. **D-E**) Excision and primary closure of the surgical wound, percutaneous suture is finally removed.

Comment

Removing skin lesions adjacent to the superficial temporal artery branches can be challenging because bleeding from cut arteries may be copious and easily obscure the area. Therefore, we decided to perform a percutaneous ligature of the temporal artery branches in order to preserve hemostasis during the surgical excision.

We started by identifying the arterial branches by palpation and tracing them with a marker. Subsequently, the arterial branches were ligated through percutaneous suture, placing large, deep Vicryl 3-0 stitches 5 mm away from the surgical design. Accordingly, surgical excision was performed with little blood loss. The severed arterial ends inside the wound were directly ligated using internal stitches. Finally, primary closure was performed, and the percutaneous suture was removed.

Since the surgical defect was located in the transition zone between frontal and temporal areas, the primary closure incorporated an element of rotation in order to place the scar along the relaxed skin tension lines and restore contour.[1,2]

In our case, the use of percutaneous ligature, a simple and effective technique, was helpful for preventing unnecessary arterial bleeding and guaranteed greater safety and visibility during the excision.[3]

References

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