

Figure 1.

The patient is placed in supine position. A squamous cell carcinoma tumour is located superficial to the maxillary bone (A) and has been removed beforehand. A portion of the zygomatic bone (B) is also marked out.

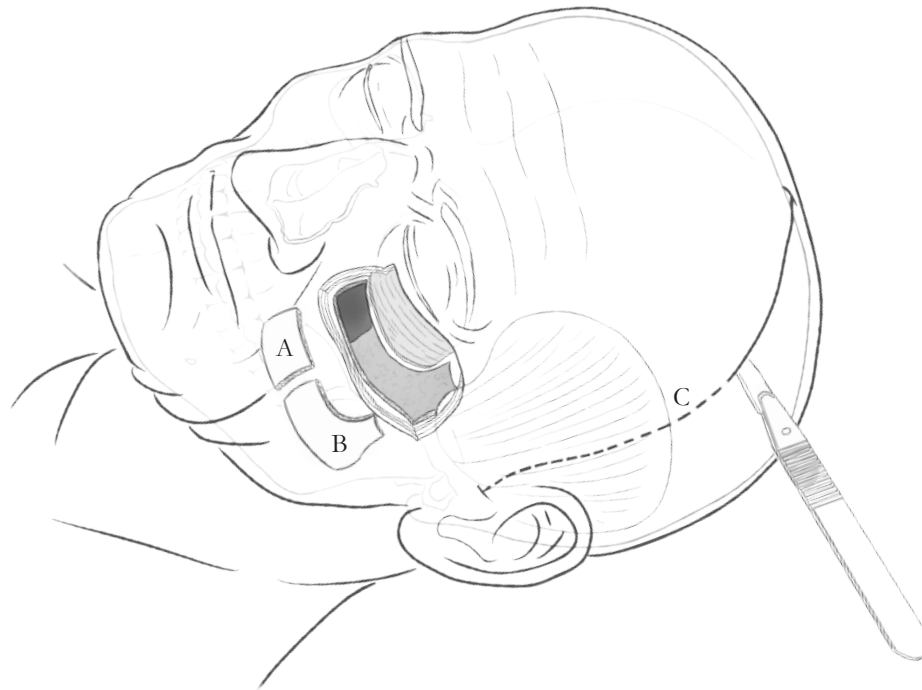


Figure 2.

The maxillary piece (A) undergoes maxillectomy and the segment is sent to biopsy for analysis. It is then discarded due to its close proximity to the tumor growth.

The zygomatic piece (B) is temporarily removed to facilitate the temporalis muscle flap procedure.

Line C, which begins from the left ear's tragus and extends to the coronal midpoint of the head is marked. An incision deep to the level of the temporal parietal fascia and galea is made along the marked line.

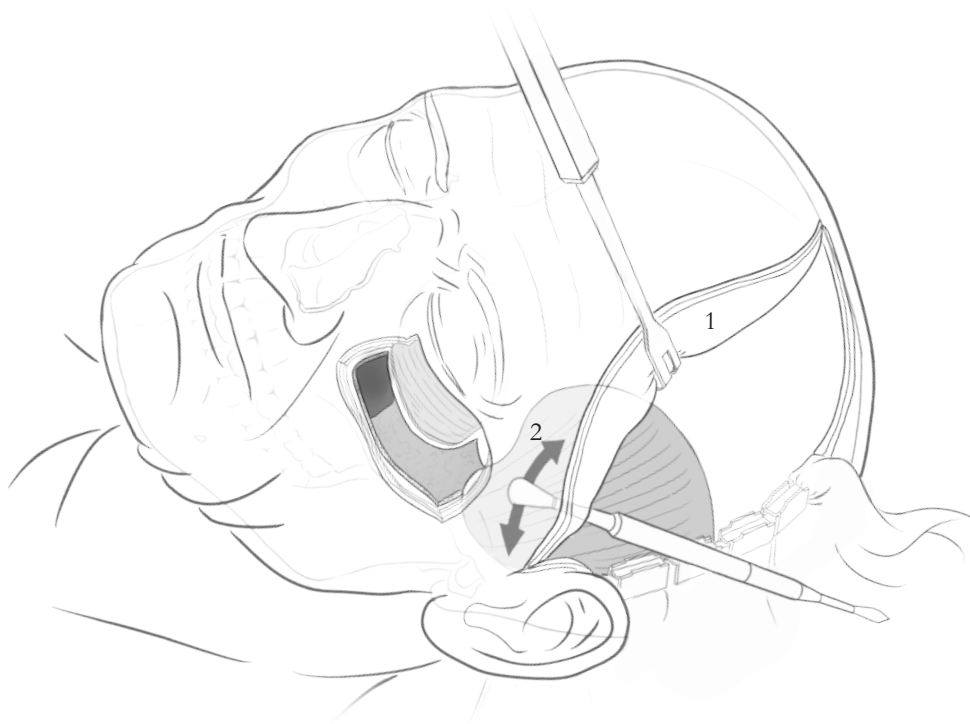


Figure 3.

1. The anterior portion of the scalp is retracted anteriorly.
2. A periosteal elevator is used to create a connecting tunnel between the left sphenoid temporal area of the skull and the orbital malar defect.

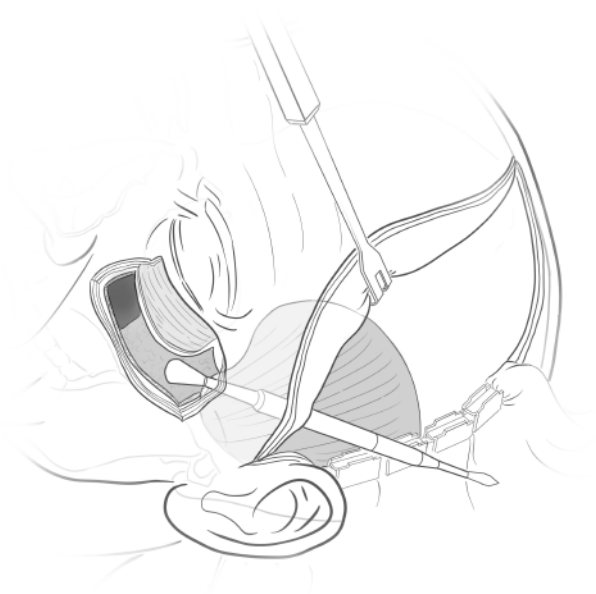


Figure 4.

The connecting tunnel that bridges the orbital malar defect and the speno-temporal area is completed.

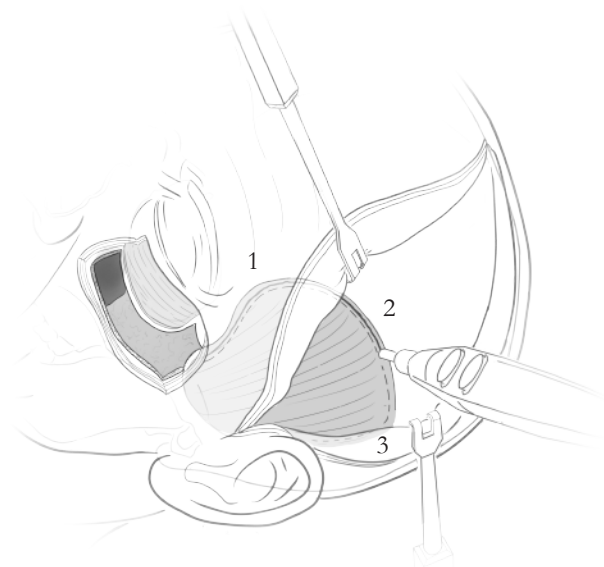


Figure 5.

Cut 1, 2 and 3 are made by an unipolar cautery to separate the temporalis muscle from its attachment point on the parietal bone.



Figure 6.

The temporalis muscle is separated along line 4 using the cautery. The muscle is now divided into the anterior half (C) and the posterior half (D).

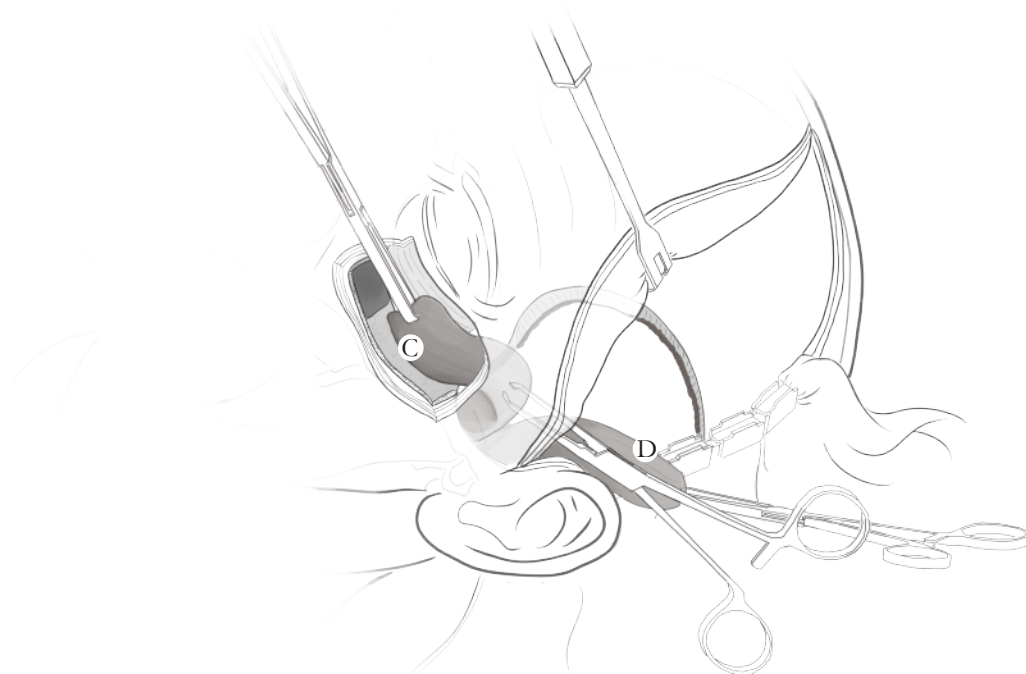


Figure 7.

The anterior half of the temporalis muscle (C) is pushed through the connection tunnel.

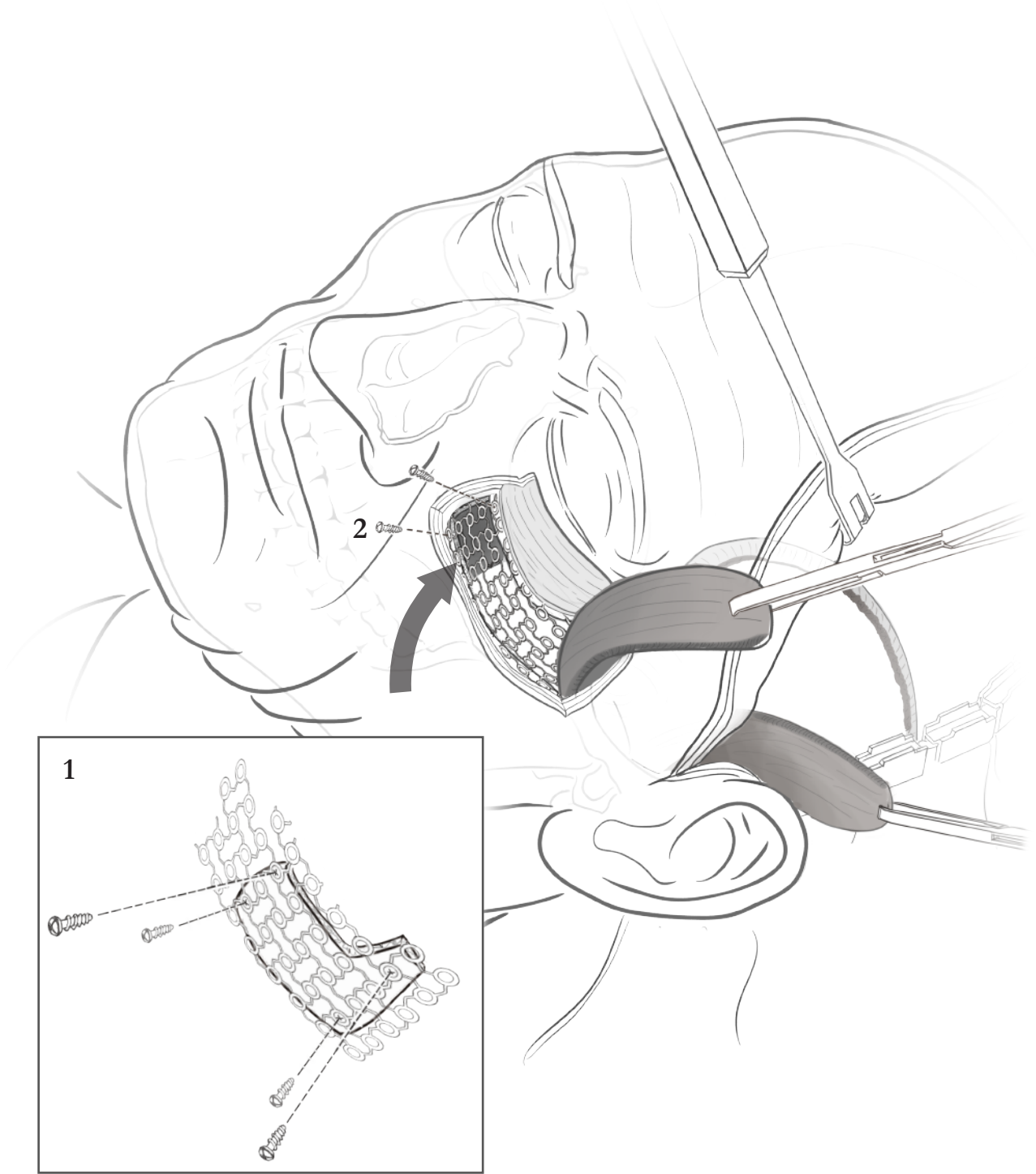


Figure 8.

Step 1. The previously removed zygomatic bone is screwed onto a pre-cut titanium mesh with 1.2mm screws.

Step 2. The titanium mesh, along with the screwed on zygomatic bone, is secured onto the cut edge of the orbital malar defect with 1.2mm screws.

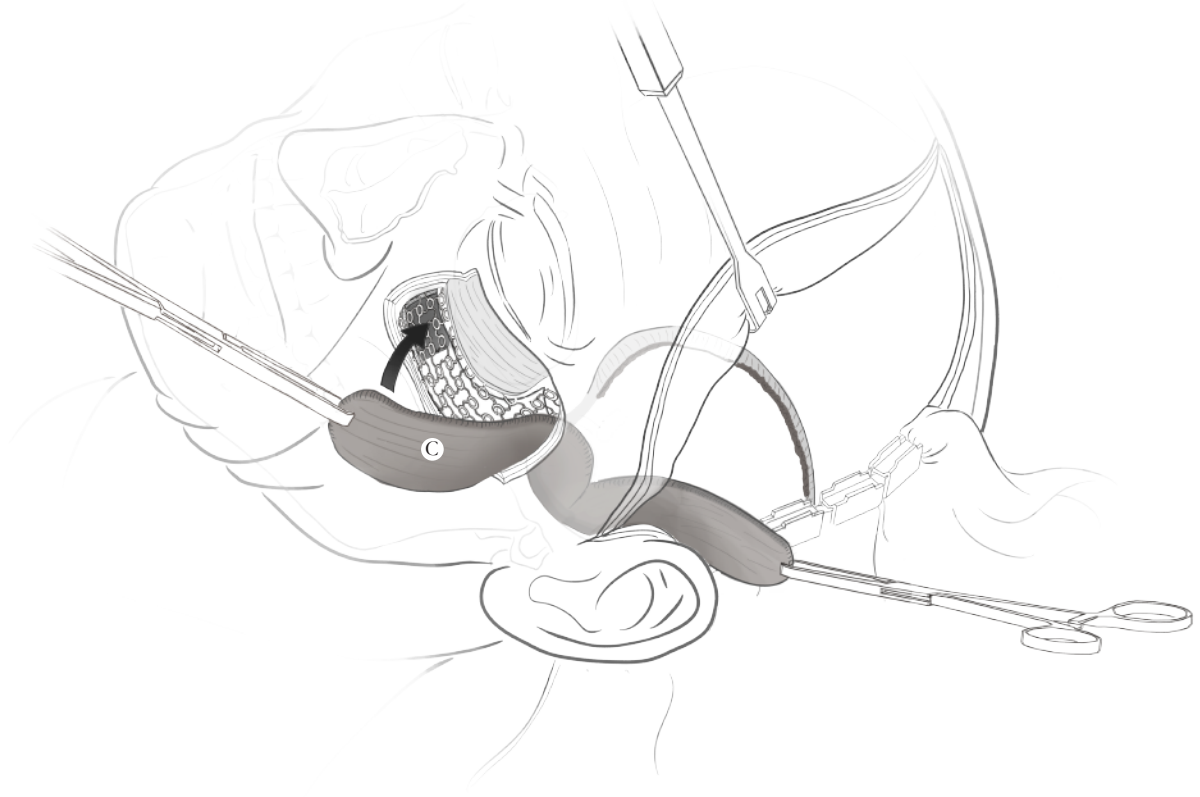


Figure 9.
The anterior half of the temporalis muscle (C) is used to cover the defect and the titanium mesh.

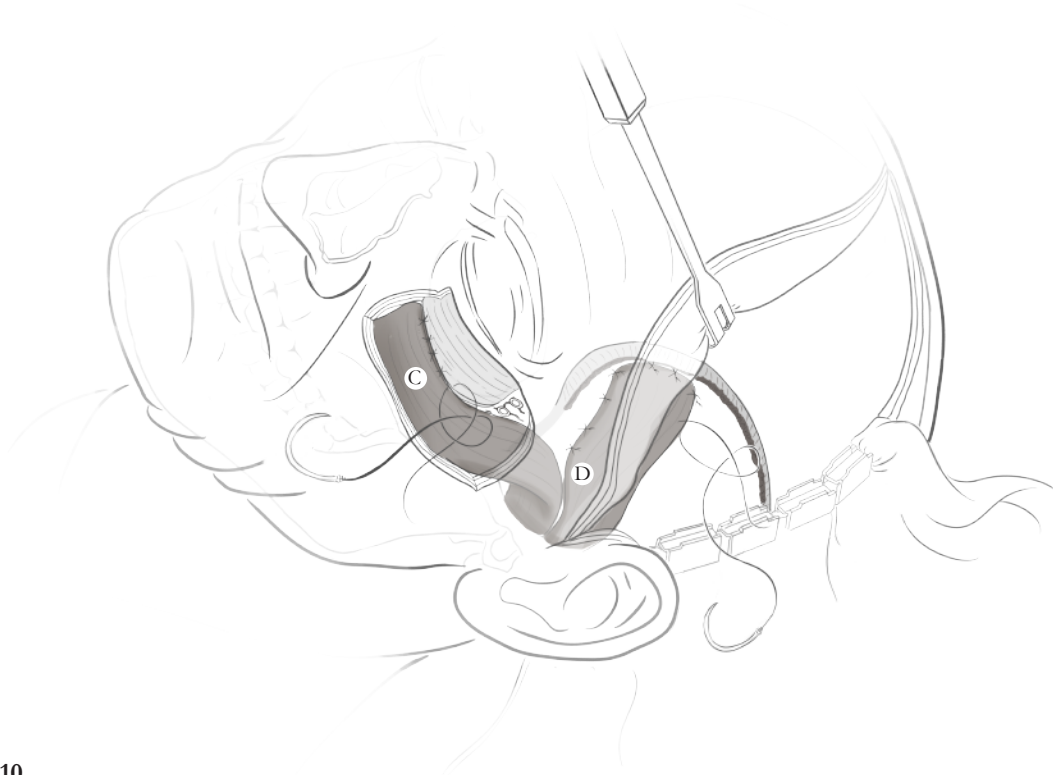


Figure 10.
The anterior half of the temporalis muscle (C) is sutured onto the titanium mesh and the surrounding tissue. The posterior temporalis muscle (D) is sutured onto the periosteum in the area that was previously occupied by the anterior temporalis muscle (C). The posterior temporalis muscle (D) is secured by figure of eight suture pattern.