

Gillie's Procedure

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Indication:

Fracture arch of zygoma (non comminuted)

Anesthesia:

General anesthesia is ideal (via endotracheal intubation). Of course, can be performed even under local anesthesia

Procedure:

Gillies technique is used to reduce fractures involving zygomatic arch. This procedure involves a temporal incision (2cm) long, made 2.5 cms superior and anterior to the helix of pinna within the hair bearing portion of scalp. Superficial temporal artery should be avoided or secured or cauterized. The dissection should be performed up to the level of temporalis fascia. This is a very important landmark in the procedure and is difficult to miss.

The temporalis fascia is cut to expose the temporalis muscle. A thin elevator (Gillie's) is passed through the incision superficial to the temporalis fascia and deep to the temporalis muscle till it reaches medial to the depressed zygomatic arch segment. An outward force is applied to the elevator to reduce the fractured bone back into anatomic alignment. The position of the bone can be verified by external digital palpation. After the reduction has been confirmed the elevator is withdrawn and the wound is closed in layers.

This technique obviates the necessity of fixing the bony fragments with titanium plates and screws.

The major limitation of Gillie's approach is that old / comminuted fractures cannot be reduced with this technique. Reduced fracture cannot be fixed with this technique.

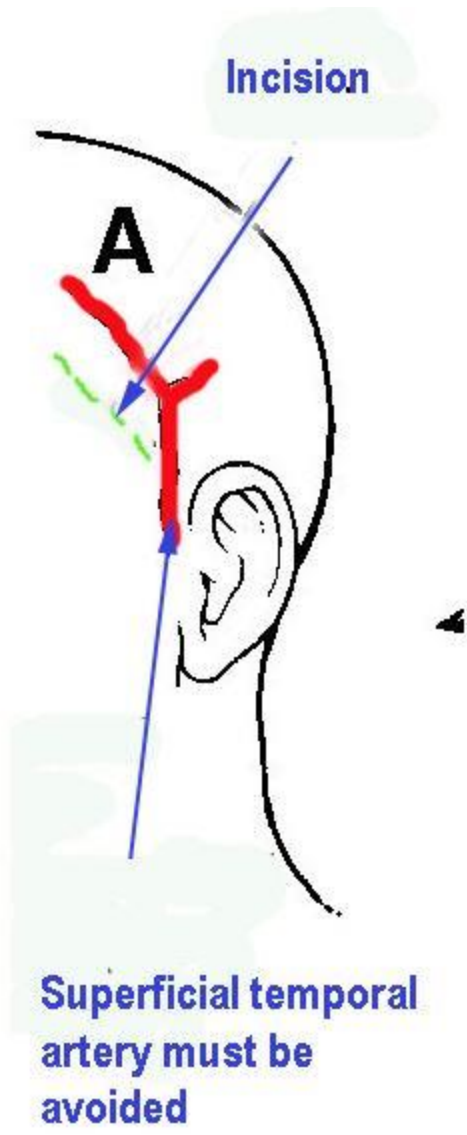
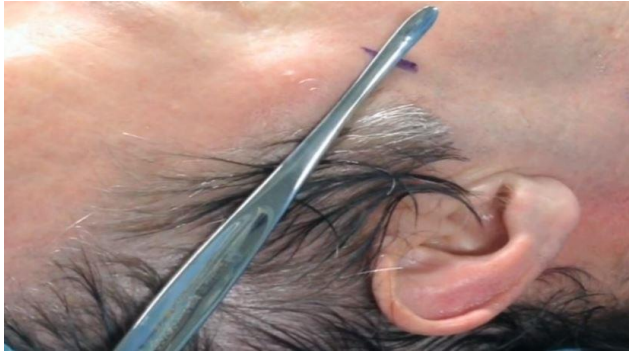
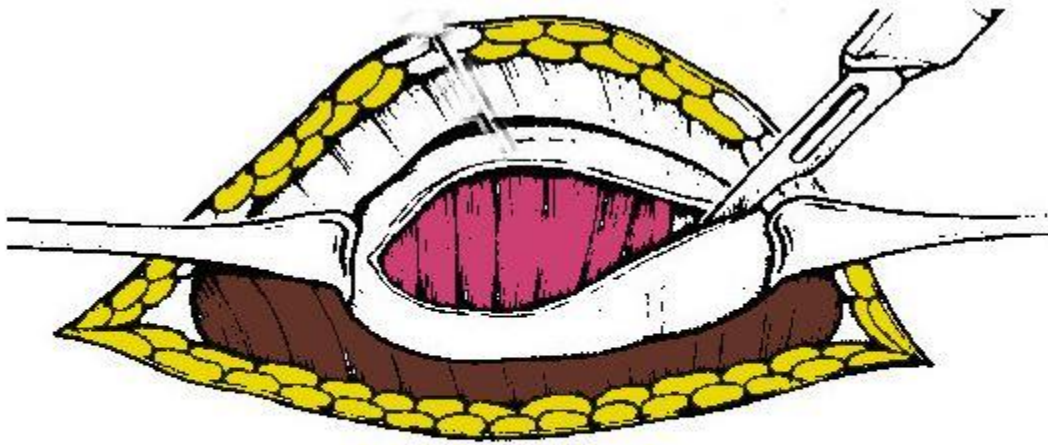


Image showing the incision



Elevator seen being used to measure the distance between the incision and fracture point



Temporalis fascia is cut with a knife



Image showing temporalis fascia exposed

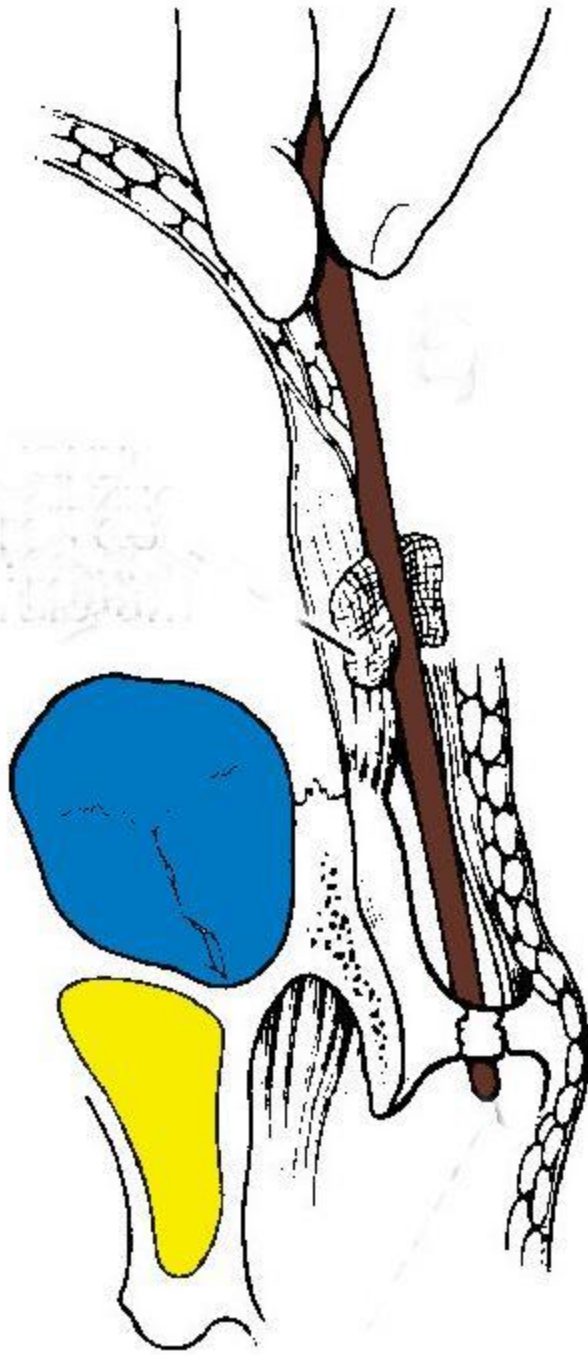


Image showing periosteal elevator being inserted



Image showing temporalis fascia being incised



Rowe's elevator seen being used to elevate the fractured zygomatic arch

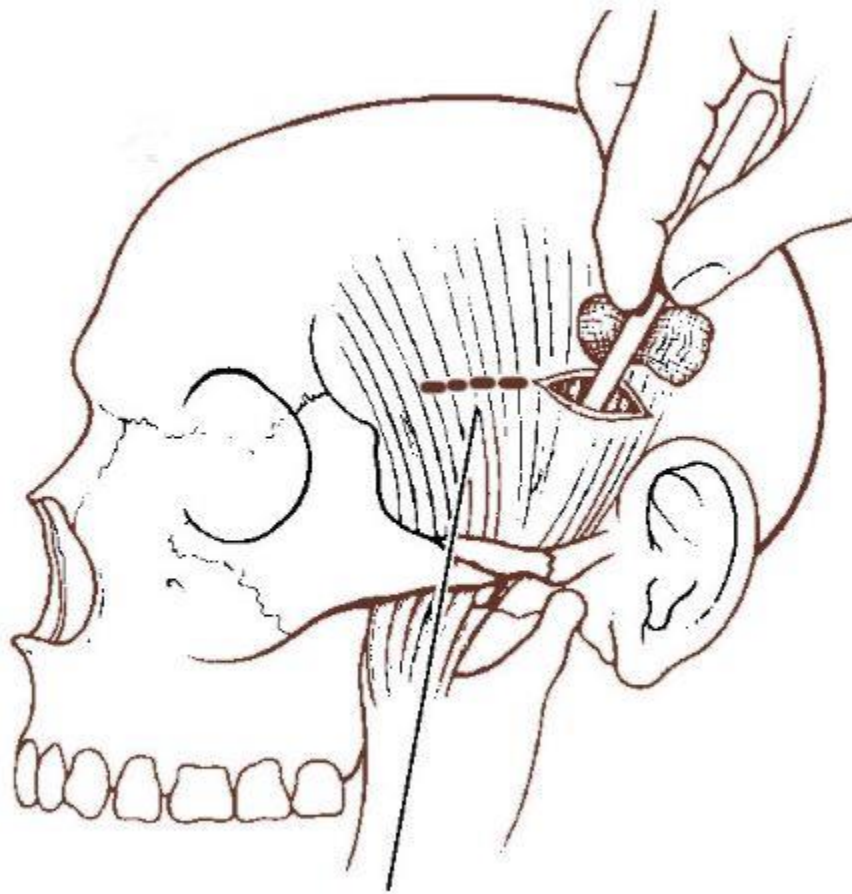


Diagram showing fractured fragments being elevated