

EMERGENT BURR HOLE in the ED for decompression of Epidural or Subdural Hematoma

Indication

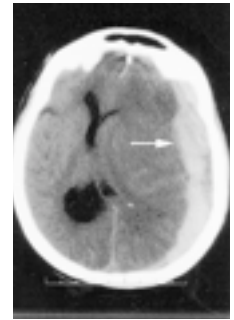
1. **GCS < 8**, and
2. **Epidural or Subdural** bleed with **midline shift** on CT*, and
(*CT not necessary in crashing patient with high suspicion.)
3. **Unequal pupils**, and
4. Timely **Neurosurgical service NOT available**

"WAS AWAKE, NOW CRUMPING!"

Delay in decompression correlates with poor prognosis.

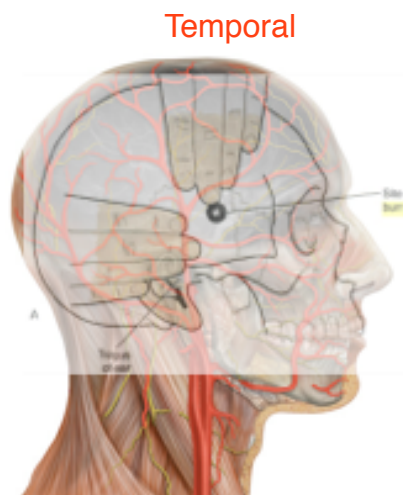
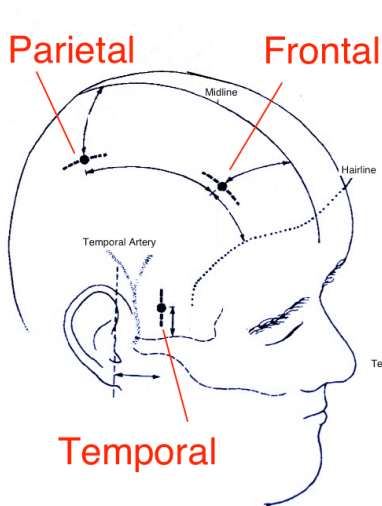


Epidural



Subdural

Landmarks



Temporal: Two fingers up and two finger forward of Auditory Canal (just above zygomatic arch).

Frontal: 10 cm straight up from mid-pupillary line

Parietal: Over parietal eminence

Typically temporal (80%), but go to the middle of wherever the CT indicates the hematoma lies!

****If crashing, drill temporal lobe on SAME side as dilated pupil! If not better, then do other side.****

Equipment

1. Hair razor/scissors
2. Scalpel
3. Retractor
4. Drill with drill-bit
5. Sharp hook
6. Suction tip
7. Dressing



Reference:

<http://www.sjtrem.com/content/20/1/24>

Tag Hopkins, MD - UC Davis 11/6/2012

Procedure

1. Find **Landmark**.
2. **Cut/shave hair** to make wide clear area.
3. **Clean** with betadine/chlorhexadine.
4. **Cut incision down to bone** (direct pressure on bleeding).
5. Use **retractor** to hold incision open.
6. Push or scrape **periosteum off bone** with knife handle.
6. **DRILL** perpendicular to bone (ideally apply saline drip/rinse).
Will likely go through two layers/tables of bone.
7. **STOP once loss of resistance** (clutch mechanism may stop drill automatically).
8. Epidural **blood should evacuate**.
9. If subdural, very carefully **use hook or scapel on dura**.
10. **Carefully suction** if necessary, don't suction brain.
11. **Gently cover**, no pressure, with sterile dressing.
12. Give dose of **IV Ceftriaxone** time permitting.
13. **DO NOT DELAY IMMEDIATE TRANSFER!**