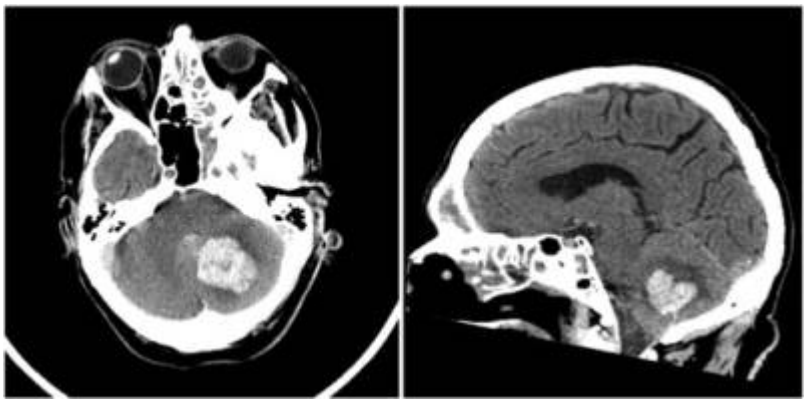
Cerebellar hemorrhage surgery



In 1906, Ballance first reported a surgical approach to treatment of cerebellar hemorrhages [1) 2)].

Since then, surgical treatment has become the general option for treatment [3)].

Recommendations from Kobayashi et al in 1994 [4)]

1. patients with a Glasgow Coma Scale (GCS) score ≥14 and hematoma <4 cm diameter: treat conservatively

2. patients with GCS≤13 or with a hematoma ≥4 cm: surgical evacuation.

3. patients with absent brain stem reflexes and flaccid quadriplegia: intensive therapy is not indicated. Note: some authors contend that the loss of brain stem reflexes from direct compression may not be irreversible, [5)] and that cerebellar hemorrhage represents a surgical emergency (and that the above criteria would thus deny potentially helpful surgery to some, see discussion of cerebellar infarction and decompression.

4. patients with hydrocephalus: ventricular catheter (if no coagulopathy). Caution: do not overdrain to avoid upward cerebellar herniation. Most cases with hydrocephalus also require evacuation of the clot

Indications

Cerebellar hemorrhage surgery indications.

Technique

Position

Lateral oblique position with the involved side up.

If rapidity is crucial a suboccipital midline skin incision is preferred because it can be taken down quickly with little fear of encountering a vertebral artery.

Suboccipital craniectomy is preferred over suboccipital craniotomy to accomodate postoperative swelling.

A prophylactically ventriculostomy at Frazier's point is recommended to allow rapid treatment of postoperative hydrocephalus or intracranial pressure monitoring.

In cases where there has been rupture into the ventricular system, the surgical microscope should be used to follow the clot to the fourth ventricle which is then cleared of clot.

External ventricular drainage (EVD) combined with intraventricular thrombolysis (IVF) is rarely used in severe spontaneous cerebellar hemorrhage (SCH) with intraventricular hemorrhage (IVH).

It is a treatment option for elderly patients with severe SCH + IVH [6].

Video

<html><iframe width="560" height="315" src="https://www.youtube.com/embed/IToJN8zD050" frameborder="0" allow="autoplay; encrypted-media" allowfullscreen></iframe></html>

References

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