

Video Abstract

One burr-hole craniotomy: Subtemporal approach in helsinki neurosurgery

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Abstract


Background: In this video-abstract, we present the Helsinki Neurosurgery one burr-hole craniotomy standard subtemporal approach to the floor of the middle fossa and the interpeduncular space. This procedure facilitates access to the multiple structures; the basilar artery bifurcation, the superior cerebellar artery, or the P1-P2 segments of the posterior cerebral artery, and lesions located around the posterior clinoid process/less than 10 mm above it. Even though the specific location and size of the lesion may vary, this approach accesses all mentioned structures with very minimal variation.

Case Description: The patient with a basilar artery bifurcation aneurysm is placed in park bench position. A spinal drain is inserted to release 50–100 ml of cerebrospinal fluid. Next, the skin incision starts in front of the tragus above the earlobe, crossing the zygomatic line. Inferior retraction for the craniotomy is provided by hooks and hemostatic Raney clips placed at the superior border of the skin flap. The zygomatic line represents the anatomical landmark of the floor of the middle fossa. A burr-hole is made at the most cranial border of the bone flap. After the detachment of the dura with long flexible blunt dissectors, a craniotomy is performed to expose the dura of the inferior temporal lobe. A few drill holes are made for tacking-up sutures. The dural opening is then performed based on the zygomatic line. Cutting and opening of the tentorium runs posterior to the tentorial insertion of the fourth nerve.

Conclusion: The described one burr-hole craniotomy offers a more efficient subtemporal approach.

Videolink: <http://surgicalneurologyint.com/videogallery/subtemporal-approach-unedited/>

Key Words: Burr-hole, craniotomy, subtemporal approach

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