A surgical technique that modifies the conventional suboccipital craniectomy for cerebellopontine angle lesions. [Japanese]

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Abstract:

This paper describes a surgical technique that modifies the conventional suboccipital craniectomy for cerebellopontine angle lesions. Briefly, a patient is first placed in a lateral park bench position, after which a linear longitudinal skin incision approximately, 1 cm posterior to the mastoid process is made while preserving the lesser occipital nerve. Muscle dissection is then carried out as each anatomical layer is reached. Next, the sternomastoid is detached from the cranium and turned out anteroinferiorly, and the splenium capitis is reflected posteroinferiorly in the same manner. On reaching the deep layer, the longissimus capitis, the posterior belly of digastric muscle, the superior oblique and the major rectus capitis are identified and reflected in the direction of their origins. A burr hole is then made adjacent to the asterion, after which the craniectomy is pursued, a using a hand held rongeur and an air drill while the posterior one third of the sigmoid sinus is exposed. Removed bone chips are kept sterile during the course of the surgery. The dura is incised in semicoronal shape, based on the contour of the sigmoid sinus. The dural flap is fixed by firm suturing to the connective tissue of the mastoid process. Simultaneously, this enables a part of the sigmoid sinus to be turned out anteriorly. Opening of the cisterna magna and aspiration of cerebrospinal fluid (CSF) immediately reduces the tension of the cerebellar hemisphere. The craniectomy enables the offering of an optimally short and direct operative field to the cerebellopontine angle, with intradural procedures even possible without a brain retractor. After the intradural procedures are completed, cranioplasty is performed using the removed bone chips mixed with a spray of fibrin glue, after which the muscles are repositioned to their original sites by suturing. We have concluded that this

surgical technique has enabled a reduction in pressure that a brain retractor can inflict on the cerebellum and the elimination of postoperative CSF leakage.