

Image Guided Prophylactic External Ventricular Drain (EVD) Insertion In Retrosigmoid Tumor Resection: The Technique

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Introduction

Retrosigmoid approach for cerebellopontine angle tumours often present problems of access due to limited space and a tendency for the cerebellum to herniate. We have routinely employed the use of EVD placement under image guidance during retrosigmoid approach. We report our technique of EVD insertion.

Materials and Method

All patients who underwent surgery via retrosigmoid approach had an EVD inserted routinely prior to opening of the dura. We describe the technique for EVD placement within the area of surgical incision under image guidance to facilitate a trajectory towards occipital horns of the ipsilateral lateral ventricle.

Result

Between 2013 and 2016, a total of 77 cases of CP angle tumor were operated via retrosigmoid approach. Of these, 54 patients had routine prophylactic EVD insertion. Only 10 out of 54 patients required a permanent CSF diversion in the form of a ventriculoperitoneal shunt.

Conclusion

Intraoperative image guided prophylactic insertion of EVD is an excellent adjunct to achieve CSF release and adequate brain relaxation and minimise retraction. It is a versatile tool for improving exposure and therapeutic tool in managing post-operative complications like hydrocephalus and CSF leak.