

Introduction

Endoscopic surgery in the neurosurgery has been developed for the biopsy and tumor resection. In the market, there are two type of neuroendoscopy are available, the flexible and rigid endoscopy system.

Methods

We reviewed my own 23 cases, which were located in the ventricle and jaxta-ventricle. All case were indicated for the biopsy, possibly tumor resection. Our usual methods is that, 1 The small burr hole was made at the coronal suture. If the lesion seated in the pineal and large massa intermedia interfered the route, the burr hole was perforated more anterior. 2 Transparent plastic neuroendoscopic sheath was inserted. The sheath was placed through the Foramen Monro to see the floor of ventricle or pineal lesion. 3 Endoscopic third ventriculostomy was done before biopsy to avoid poor visualization. I preferred rigid endoscopy, however some cases were used flexible one simultaneously. 4 The lesion was usually covered by ependyma. The biopsy materials should be obtained underneath them. 5 After removing neurosheath, the hole of endoscopy was embed by gelatin sponge.

Results

There were 7 pineal tumor, 10 intraventricular tumor, 3 supra-sellar tumor, and 2 mid-brain tumor. One of 22 cases were unable to diagnose. The pathology were 6 glioma, 5 germinoma, 2 PCNSL, one pineal teratoma, 2 metastatic tumor.

Conclusions

The cases without hydrocephalus is difficult but possible. Leksell stereotactic frame or neuronavigator were adopted. The operator must know the trouble shooting. In the case of vascular rich tumor, the hemostasis after biopsy was difficult. Pressure irrigation and electrical coagulation were needed. The compression by endoscopy shaft could be effective. The most important point was so-called “Do not move from bleeding point”.

In conclusion, the endoscopic biopsy is safe and reliable to diagnose, but total tumor resection is under developing.

Learning Objectives

Endoscopic skills, Hemostatis under neuroendoscopy

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