before and after the removal of the tumor by the transsphenoidal approach, it is evident that although the HGH level decrease in every case after the operation, it keeps within the normal level only in a few cases. The cause of this fact is considered to be residual tumor cells invading the tumor capsule (dura mater) which can not be curetted by the intracapsular removal. Transsphenoidal approach for acromegaly must be reevaluated according to the long term follow-up of the HGH.

In conclusion, pituitary tumors can not be removed completely by the transsphenoidal approach what is the limitation of this method even in the days of microsurgery.

A-78. Application of Microsurgical Techniques for Brain Tumor

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Microsurgical techniques have been applicated for deep seated brain tumors intra- & para-sellar tumors, pineal tumors and cerebellopontine angle tumors. We used surgical microscope for 3 patients with parasagittal meningioma and one with trigeminal neurinoma.

Operative mortality and morbidity of middle third parasagittal meningioma have been high, because of laceration of pre-or post-central gyrus, obliteration of superior sagittal sinus, or damage to Rolandic vein or vein of Trolard. We successfully removed them by accurate and delicate dissection of tumors from surrounding brain and cerebral vessels under maginified and illuminated operative fields. Hemiparesis of 8 years' duration and months' recoverd immediately after the operation. In the other one, however, weakness of right ankle was not improved, but no other neurological deficits were added.

In all patients, superior sagittal sinus and ascending veins were preserved at operation and they were recognized to be intact in the postoperative cerebral angiography.

We also used microsurgical techniques for trigeminal neurinoma, originating in cavum Meckelii and invading into the posterior fossa. Following the subtemporal craniectomy, tumor was separated from pons and removed totally through the incised tentorium cerebri without damaging any cranial nerves or vessels. No neurological deficits were detected postoperatively.

We recommend more extensive application of microsurgical techniques for brain tumors especially for the middle third parasagittal meningioma and tumors involving cranial nerves and cerebral vessels.

- 177 --