

## **Endoscope-Assisted Microsurgical Resection Of Epidermoids And Dermoids**

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### **Objective**

To determine the value of endoscope assistance in the microsurgical resection of skullbase epidermoids and dermoids.

### **Methods**

22 patients harboring an epidermoid and 4 patients harboring a dermoid were treated using an endoscope-assisted microsurgical technique. In three patients, two surgeries were performed because of the tumor extension. In all cases, most of the tumor mass was removed under microscopic view. Tumor parts which were not visible with the microscope were removed under endoscopic view of 30° and 45° endoscopes.

### **Results**

In 22 of the 26 surgeries (85 %), tumor remnants which were not visible with the microscope were identified with the endoscope and resected under endoscopic view. The endoscope was especially helpful when the tumor extended into another cranial compartment. The tumor was completely evacuated in 21 patients (81 %). In 5 patients, a near total resection (less than 5 % tumor) was identified on the postop MR images. In 6 patients, the cyst membrane was totally removed. In most patients, however, small parts of the capsule which were adherent to nerves and vessels were left in place. There was no obvious complication related to the application of the endoscope. There was no mortality. In one patient, a thalamic hemorrhage occurred leading to transient aphasia and hemiparesis.

### **Conclusion**

The endoscope-assisted microsurgical technique enhances the radicality of the tumor resection while decreasing the amount of skull base drilling and retraction which is necessary to expose the tumor. It enables a safe tumor removal even when tumor parts are not visible in a straight line. In posterior fossa epidermoids, tumor parts extending into Meckel's cave or the middle cranial fossa were removed via a simple retrosigmoid craniotomy without enlarging the approach.