

Summary

The neuroendoscope is a useful neurosurgical tool that can be used safely in many neuroendoscopical procedures.

The treatment of hydrocephalus by endoscopic techniques is arguably the most beneficial indication for this discipline. To cure hydrocephalus and thereby render an individual shunt independent is a great service to both the patient and the community. Many of these procedures are third ventriculostomy, aqueductoplasty, foraminoplasty and choroid plexectomy.

The role of endoscopic techniques in tumors is quite restricted. Many tumors bulge into the ventricles or are confined to the ventricular system. If their operability is questionable or absent, they can be approached endoscopically. The main goals are to perform a biopsy, sometimes with partial removal but seldom with total removal.

Endoscopic treatment of intracranial hemorrhages is done in selected cases of intracerebral, intraventricular, septated chronic and traumatic subdural haematomas.

The adaption of the endoscope for vascular surgery faces the same problems that occurred with the use of the operating microscope in neurosurgery. With current technology it is possible to visualize, dissect and clip aneurysms.

There is a significant learning curve for neuroendoscopy. However, a large knowledge base now exists to allow us to recognize and avoid potential complications. Avoiding complications in neuroendoscopic procedures involves proper patient selection, precise intracranial orientation, and selection of the appropriate entry site and approach angle, handling the brain corridor and selecting the necessary instrumentation. Having a knowledge of anatomy related to endoscopy helps to minimize complications.