Endoscopic third ventriculostomy failure

ETV success or failure may be influenced by numerous factors.

A repeat endoscopic third ventriculostomy and choroid plexus cauterization can be an effective salvage surgery in the event of Endoscopic third ventriculostomy failure [1].

The relative risk of Endoscopic third ventriculostomy failure is initially higher than that for shunt, but after about 3 months, the relative risk becomes progressively lower for ETV. Therefore, after the early high-risk period of ETV failure, a patient could experience a long-term treatment survival advantage compared with shunt. It might take several years, however, to realize this benefit [2].

The absence or weakness of pulsation of the third ventricle floor at etV completion was significantly related to etV failure ($p < 0.0001$). The presence of thickened or scarred membranes in the subarachnoid space was significantly related to etV failure ($p < 0.04$) as well as the Liliequist membrane opening in a second endoscopic maneuver ($p < 0.008$) [3].

In infants with hydrocephalus, a greater 1-year CSF diversion failure rate may occur after ETV compared with shunt placement. This risk is most significant for procedures performed within the first 90 days of life. Further investigation of the need for multiple reoperations, cost, and impact of surgeon and hospital experience is necessary to distinguish which treatment is more effective in the long term [4].

Stoma closure

Closure of the stoma can be associated with symptom recurrence and need for further surgical intervention.

Adult patients with obstructive hydrocephalus secondary to aqueductal stenosis exhibited a low rate of stoma closure with the use of a side-cutting aspiration device, and a rate of complications comparable to the known literature. Likewise, patients treated with a side-cutting aspirator may have lower symptom recurrence post-ETV and require fewer revisions in comparison with the known literature. As such, a side-cutting aspirator may be considered as a useful adjunct to traditional ETV for the treatment of obstructive hydrocephalus secondary to aqueductal stenosis [5].

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