Treatment Options For Third Ventricular Colloid Cysts: Comparison Of Open Microsurgical Versus Endoscopic Resection

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Purpose
We retrospectively reviewed our experience treating third ventricular colloid cysts to compare the efficacy of endoscopic and transcallosal approaches.

Materials and Methods
Between January 1997 and December 2016, 64 patients underwent third ventricular colloid cyst resection. The transcallosal approach was used in 46 patients; the endoscopic approach was used in 18 patients. Age and sex were similar. Cyst diameter was higher in the transcallosal approach group and the hydrocephalus was more frequent in the endoscopic approach group.

Results
The operating time and hospital stay were significantly longer in the transcallosal craniotomy group compared with the endoscopic group. The transcallosal craniotomy group had a higher infection rate (11 versus 2). Intermediate follow up demonstrated more residual cysts in the endoscopic group than in the transcallosal craniotomy group (12 versus 7). Overall neurological outcomes were better in the endoscopic group.

Conclusion
Compared with transcallosal craniotomy, neuroendoscopy is a safe and effective approach for removal of colloid cyst in the third ventricle. The endoscope can be considered a first-line treatment for these lesions but a number of patients may have residual cysts.