Hydrocephalus associated to midline arachnoid cysts

Occasionally, hydrocephalus is associated due to a change in CSF circulatory dynamics. Neuroendoscopic treatment has been recommended for patients who develop symptoms resulting from the cyst location.

González-García et al. retrospectively evaluate the results in a series of 9 patients with hydrocephalus associated to midline arachnoid cysts treated endoscopically. Success was rated on a scale of five degrees of neuroendoscopical success.

They performed endoscopic third ventriculostomy (ETV) in three cases; ETV was associated to ventriculocystostomy (VC) in three cases; ETV, VC and septostomy (SPT) were performed in one patient; neuroendoscopic Monro foraminoplasty (NEFPMO) plus SPT were associated in one case; last patient was performed ETV, VC and cystocysternostomy (CC). For first procedures, 6 patients completed permanent Success (Grade I). In one case success was transitory (Grade II) and required a second procedure (ETV). In one patient VC success and ETV failure implied partial success (Grade III). One patient´s early failure (Grade V) required a second procedure (ETV + NEFPMO). Success in second procedures was Grade I in both patients. Follow up period was over 12 months and altogether success was Grade I in 8/9 patients and Grade III in 1/9 patients. Shunt independency went over 88%.

Endoscopy allows a solution avoiding the implantation of cerebrospinal fluid shunt devices. When possible, we likely approach both, hydrocephalus and arachnoid cyst, with different endoscopic maneuvers in a single procedure. It is important to expand the usage of success classifications for combined procedures [1)].

1)
González-García L, Ros-López B, Ibáñez-Botella G, Romero-Moreno L, Martín-Gallego A, Arráez-Sánchez M. Neuroendoscopic treatment for hydrocephalus associated to midline arachnoid cysts in a series of nine pediatric patients. Minerva Pediatr. 2015 Jun 4. [Epub ahead of print] PubMed PMID: 26041004.