

Ventriculo-Gallbladder Shunt: Case Series and Literature Review

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Abstract : BACKGROUND: The most used variety in hydrocephalus treatment is the ventriculoperitoneal shunt (VPS). However, it may fails in 20 to 70% of cases. It makes necessary to have alternative cavities for the implantation of the distal catheter. Ventriculo-atrial shunting (VAS) is described as the second option. To our knowledge, there are 121 reported cases of VGB shunt in children until 2020 and a highly variable success rate, from 25 to 100%, with an average of 63% of patients presenting good long-term results. Our goal is to evaluate the epidemiological profile of patients submitted to ventriculo-gallbladder (VGB) shunt and, through a review of literature, to compare our results with others series. METHODS: a retrospective cross-sectional observational study of a case series of nine patients. The medical records of all patients were reviewed, who underwent VGB shunt at the Hospital Pequeno Príncipe from Curitiba, Paraná, Brazil, from January 2014 to October 2022. The inclusion criteria were: patients under 17 years of age with hydrocephalus of any etiology, currently using or prior to VGB shunt. RESULTS: There were 6 (66,7%) male and 3 (33,3%) female. The average age of 73.6 months or 6.1 years at the time of surgery. They were submitted on average 5.1 VPS reviews previous to VGB shunt. Five (55,5%) had complications of VGB shunt: infection (11.1%), atony (11.1%), hypodrainage due to kinking the distal catheter in the solution (11.1%) and ventriculoenteric fistula (22.2%); all these patients were cured at surgical reapproach, and in 2 of them the VGB shunt was reimplanted. Two patients died (22.2%), and five (55,5%) patients maintained the use of VGB shunt in the follow-up period; and in 4 (44.4%) there was never need for review. CONCLUSION: VGB shunt tends to be underestimated because it is still unconventional and little publicized in literature. Our article shows a lower risk of death and similar risk of complications when compared to others altenatives shunts. We emphasize VGB shunt as a safe procedure to be the second option when VPS fails or has contraindications.

Keywords : hydrocephalus, ventricular-gallbladder shunt, VGB shunt, VPS, ventriculoperitoneal shunt, ventriculoatrial shunt

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