

A REVIEW ON VENTRICULO-PERITONEAL SHUNT INSERTION COMPLICATIONS IN CENTRAL SARAWAK FROM A HOSPITAL BASED REGISTRY

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Introduction

Ventriculo-peritoneal shunting (VPS) involves inserting a device into the cerebral ventricle to divert excess cerebrospinal fluid (CSF) into the peritoneal cavity. This CSF diversion method is the mainstay of treatment in central part of Sarawak for hydrocephalic patients, as endoscopic third ventriculostomy (ETV) is not easily accessible. While it is a saving grace to many, when complications arise, it can be detrimental.

Objective

To study the rate and complications from VPS insertion.

Methods

Data collected prospectively from January 2020 till December 2022 from a hospital-based registry. Patients are followed up till 3 years from shunt insertion.

Results

72 VPS insertions/revisions were done in 60 patients. The aetiologies were tumours (17), congenital (12), trauma (10), infection (tuberculous and cryptococcal) (8), and others such as shunt failure (21), post-chlorhexidine spinal arachnoiditis (1), post-aneurysmal subarachnoid haemorrhage (2) and acute on chronic subdural haemorrhage secondary to overdrainage (1).

Revision rates were higher among children, 67% versus adults, 33%. Malfunctioning/suboptimal VPS, were the main contributing factors. Another complication was a child with trans-anal protrusion of the VPS after five months of insertion. In my series, infection rate was 4.3% (3/70); three pediatric patients were covered for infection in view of high CSF protein levels, and one which had CSF glucose level of 0 mmol/L. Only one among them had a positive culture of *Janibacter sp.* (doubtful significance).

Conclusion

Complications tend to appear in the first year following VPS insertion, with a higher incidence in children; suggesting for more stringent follow-up during the first year. Caretakers should be educated to identify early signs and symptoms suggesting shunt malfunction or infection so that swift actions can be taken to prevent detrimental effects, considering that central Sarawak's geographical demographics pose a challenge for some to attain emergency neurosurgical services when issues arise.

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