

Complete intraventricular migration of shunt tube: Rare complication after ventriculoperitoneal shunt

Sir,

Ventriculoperitoneal (VP) shunt is a common procedure performed for treating hydrocephalus. Shunt migration is a known complication associated with this procedure. Shunts can migrate both upwards and downwards.^[1,2] Proximal migration of the shunt is a rare complication of VP shunt placed for the treatment of hydrocephalus. Complete proximal migration of shunt tube into ventricle is a rare phenomenon and only few cases are reported in literature. We report a case of complete intraventricular migration of shunt in a 3-year-old child with hydrocephalus secondary to tubercular (TB) meningitis treated by VP shunt.

A 3-year-old male operated for TB meningitis 8 months

back was brought with the complaints of swelling behind the ear and vomiting since 1-week. Child had features of raised intracranial pressure and subgaleal cerebrospinal fluid collection [Figure 1]. Shunt tube was not palpable along the tract. Computerized tomography showed complete migration of shunt tube in to the ventricle [Figure 2]. Endoscopic removal of shunt tube was done, followed by shunt placement on right side after 3 weeks.

The intracranial migration of ventriculo–peritoneal shunt is the rarest complication and constitutes 0.1-0.4% of all shunt procedures.^[1] Distal migration of the shunt has often been reported.^[1,2] Proximal migration into the ventricle is very rare event. Two principal causes have been suggested to explain the shunt migration into the cranium: The mechanic force moving the shunt



Figure 1: Subgaleal cerebrospinal fluid collection

catheter into the cranium and the low resistance.^[3,4] Also abdominal distension and or respiratory movement of the thoracic cage may be responsible for the upward migration. Technical fault is reported as cause of migration by others authors.^[3,4]

The treatment of migrated shunt consists of removing the migrated shunt by endoscopic technique with implantation of a new shunt, preferably with a reservoir on opposite side.^[1]

We report this case to bring the awareness of this condition, to understand the mechanism of development and management.

Vijay C. Pujar, Shirin S. Joshi

Department of Pediatric Surgery, KLE University,
Belgaum, Karnataka, India
E-mail: vcpujar@hotmail.com



Figure 2: Computerized tomography of cranium showing presence of intraventricular shunt tube

REFERENCES

1. Acharya R, Bhutani A, Saxena H, Madan VS. Complete migration of ventriculoperitoneal shunt into the ventricle. *Neurol Sci* 2002;23:75-7.
2. Albala DM, Danaher JW, Huntsman WT. Ventriculoperitoneal shunt migration into the scrotum. *Am Surg* 1989;55:685-8.
3. Choudhury AR. Avoidable factors that contribute to the complications of ventriculoperitoneal shunt in childhood hydrocephalus. *Childs Nerv Syst* 1990;6:346-9.
4. Gupta PK, Dev EJ, Lad SD. Total migration of a ventriculo-peritoneal shunt into the ventricles. *Br J Neurosurg* 1999;13:73-4.

Access this article online	
Quick Response Code:	Website: www.ijns.in
	DOI: 10.4103/2277-9167.138927