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

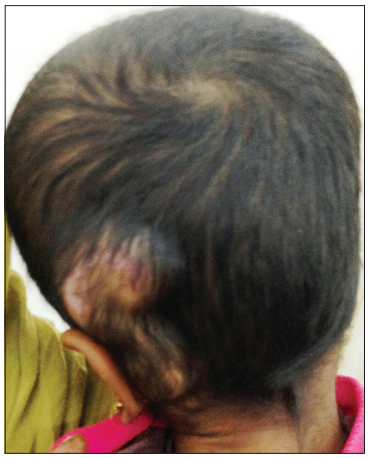

Figure 1: Subgaleal cerebrospinal fluid collection

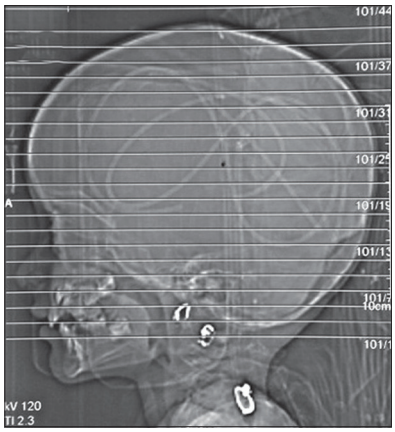

Figure 2: Computerized tomography of cranium showing presence of intraventricular shunt tube

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.

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