

AN UNUSUAL COMPLICATION OF THE VENTRICULO-PERITONEAL SHUNT: MIGRATION OF THE DISTAL END INTO THE SCROTUM THROUGH THE INGUINAL CANAL

Alp İskender GÖÇER M.D., Hüseyin BAĞDATOĞLU M.D., Erdal ÇETİNALP M.D., Ziya UZUNYÜPOĞLU M.D., Aşkın KARADAYI M.D.

Department of Neurosurgery, University of Çukurova, Faculty of Medicine, ADANA / TÜRKİYE.

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SUMMARY :

A patient with communicated hydrocephalus, who was treated by ventriculo - peritoneal shunting eight months ago, was admitted to hospital because of a rare complication of this procedure, namely hydrocele.

We report the case and review the literature.

KEY WORDS :

Ventriculo - Peritoneal shunting. Ventriculo - Peritoneal shunt complication.

INTRODUCTION

Ventriculo-peritoneal (V-P) shunting procedure yields many complications which are troublesome either to the surgeon or to the patient. The most common complications of shunting are obstruction, infection and intracranial haemorrhage (4). Some other rare complications may also be seen (1,2,3,5,7,8,9). This report describes hydrocele after V-P shunting.

CASE REPORT

A ten-month-old boy with a V-P shunt who complained of scrotal swelling and hyperemia was admitted to hospital. The V-P shunting procedure had been carried out eight months previously because of communicated hydrocephalus. There were no complaints until one week before admission.

Examination. Physical and neurological examinations were normal excluding the hydrocele. There was no sign of common complications of V-P shunting procedure. The child was active and alert. The shunt apparatus was flushed up. Plain x-Ray films showed that the tip of the peritoneal catheter had migrated into the scrotum via the inguinal canal (Figure 1).

Operation. The peritoneal catheter of the shunt was withdrawn and shortened (Figure 2). Prophylactic antibiotics were administered for five days and sutures were removed seven days after operation.

DISCUSSION

The treatment of hydrocephalus is still troublesome for neurosurgeons as complications can hinder

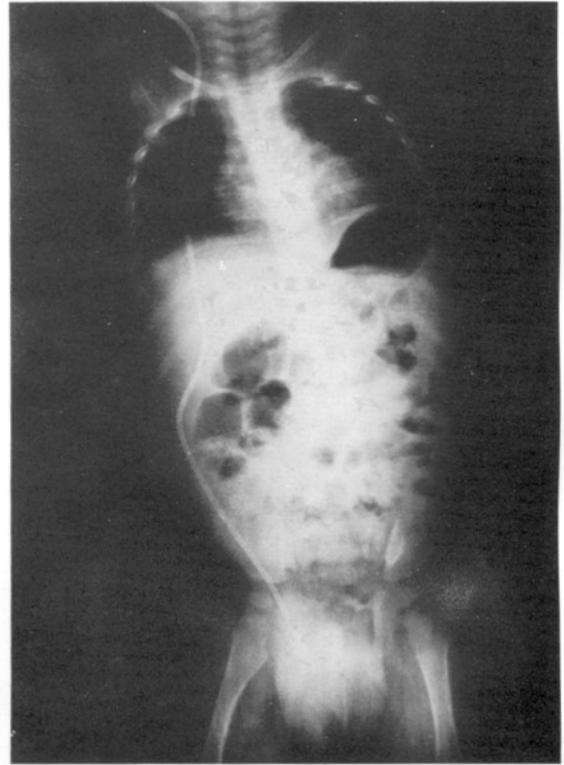


Figure 1 : Plain X-Ray films showed the tip of the peritoneal catheter had migrated into the scrotum via the inguinal canal.

treatment of hydrocephalus. The most common complications of the cerebrospinal fluid (CSF) shunting operation are infection and obstruction. The range for infection is between 3 and 20 percent (4).



Figure 2 : The peritoneal catheter of the shunt was withdrawn and shortened.

Many reports suggest that haemorrhage can occur in the ventricles, intracerebrally or in the subdural space, even epidural haematoma has been seen (4,6). Avulsion of the choroid plexus, seizure, abdominal complications of the peritoneal tube of a V-P shunt as intestinal or liver capsule perforation, spontaneous extrusion of the peritoneal catheter through an intact abdominal wall are seen extremely rarely (1,2,5,8,9).

As in our case, migration of the abdominal catheter of a V-P shunt into the scrotum and hydrocele and inguinal hernia after V-P shunt in childhood have been reported in the literature (3,7).

Even with meticulous care these can occur although the surgeon's experience and appropriate approach for the treatment of hydrocephalus may reduce these complications.

Explanation of the migration of the distal catheter in our case is difficult, but it could be based on bowel contractions. The operation revealed that the peritoneal catheter had been inserted 30 cms into the peritoneal cavity to compensate for growth. Although this may be a technical fault, but it could be the misfortune of either the surgeon or the patient.

Correspondence : Dr. Alp İskender Göçer M.D.,
Çukurova Üniversitesi, Tıp Fakültesi,
Nöroşirürji ABD,
Adana / TURKEY

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