A Rare Complication of a Ventriculoperitoneal Shunt Resolved by Colonoscopy



In addition to the two most frequent complications of obstruction and infection, ventriculoperitoneal (VP) shunts have been associated with a pseudocyst, mesenteric pseudotumor, metastasis of cerebral tumors via the shunt, and protrusion of the distal catheter through the scrotum or vagina [1,2]. Bowel perforation, especially of the colon, has been previously described in about 30 cases, usually in children [2].

A 33-year-old man underwent the insertion of a VP shunt for traumatic hydrocephalus. After 6 months, the protrusion of a strange structure through the anus during defecation was noted. Colonoscopic examination revealed that a part of the distal VP shunt had perforated the colon about 25 cm from the anus (Figure 1). The distal part was grasped and pulled straight with a "crocodile" clamp while the tube was cut and ligated upon its proximal abdominal entry site through a small incision at the right hypochondrium, after which the residual tube was removed through the anus. The patient recovered without complications, and at follow-up colonoscopic examination 10 days later the rectal wound had healed completely.

Perforation of an intra-abdominal hollow organ is a rare complication of a VP shunt

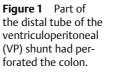
and is associated with a 15% mortality [1, 2]. A long-lasting adhesion of the catheter to the bowel may have led to its erosion, augmented by the stiff and sharp tip of the distal catheter [1, 3].

In the management of rectal perforation caused by a VP shunt, three options have been suggested: total removal of the shunt, conservative management with intravenous antibiotics, and external ventriculostomy until the cerebrospinal fluid (CSF) becomes sterile [1,3,4].

In the case discussed here, management consisted of colonoscopy-assisted removal of the peritoneal part of the catheter combined with antibiotic treatment, with good results.

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