

Neuroimage

Where did this oral tube come from?

Aman Singh Sohal*, Victoria Whittle and Jill Kisler

Department of Pediatric Neurology, The Great North Children's Hospital, Newcastle-Upon-Tyne, UK

Received 26 August 2013

Revised 8 January 2014

Accepted 14 January 2014

A well looking 11-month-old baby presented to accident and emergency department with a 24 hour history of vomiting. In the last vomit, a fine bore tube was expelled from his mouth. He had multiple abdominal surgeries in the past and 10 days prior to admission, his ventriculo-peritoneal shunt had been revised. Plain X-ray of chest and abdomen was undertaken as a part of shunt series. Plain X-ray of chest and abdomen demonstrated migration of the distal end of the shunt into the stomach and out through the mouth (Fig. 1). The perforation was very small and did not require any surgical correction. Neurosurgical management involved externalization of the distal end of the shunt along with 2 weeks of intravenous antibiotics prior to insertion of a new ventriculo-atrial shunt.

Complications of ventriculo-peritoneal shunts are commonly encountered and range from infection and blockage to erosion of abdominal viscera, the latter reported in 0.01% of patients [1–5]. Although visceral erosion by a ventriculoperitoneal shunt is rare, these carriers have a significant mortality of 15% [1]. One of the predisposing factors for this complication is previous abdominal surgery. This baby had four previous episodes of intra-abdominal surgery, the first occasion was at birth for necrotizing enterocolitis with



Fig. 1. Chest and abdomen X-ray.

subsequent reversal of stoma, and twice for ventriculo-peritoneal shunt insertions. Pediatricians and emergency care physicians must be aware of this rare but potentially life threatening complication of ventriculo-peritoneal shunts in children.

References

- [1] Snow RB, Lavyne MH, Fraser RA. Colonic perforation by ventriculoperitoneal shunts. *Surg Neurol* 1986; 25(2): 173-7.

*Correspondence: Dr. Aman Singh Sohal, Department of Pediatric Neurology, The Great North Children's Hospital, Newcastle-upon-Tyne, NE1 4LP, UK. Tel.: +44 1912825738; Fax: +44 1912563019; E-mail: manusohal@doctors.org.uk.

- [2] Griffith JA, DeFeo D. Peroral extrusion of a ventriculoperitoneal shunt catheter. *Neurosurgery* 1987; 21(2): 259-61.
- [3] Park CK, Wang KC, Seo JK, Cho BK. Transoral protrusion of a peritoneal catheter: a case report and literature review. *Child's Nerv Syst* 2000; 16(3): 184-9.
- [4] Coley BD, Kosnik EJ. Abdominal complications of ventriculoperitoneal shunts in children. *Semin Ultrasound CT MR* 2006; 27(2): 152-60.
- [5] Gupta M, Digra NC, Sharma N, Goyal S, Agrawal A. Peroral extrusion of the peritoneal catheter in an infant. *N Am J Med Sci* 2012; 4(6): 290-2.