Accidental Puncture of Shunt Tube by Subcutaneous Suture

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Ventriculo-peritoneal shunt is one of the commonest procedures in neurosurgical practice [1] and almost all neurosurgeons struggle with shunt malfunctions and their complications [2]. Three month old male child underwent right ventriculo-peritoneal shunt at a peripheral hospital for congenital aqueductal stenosis. The child presented to our institute with the complaints of watery discharge from the operated site. There was no history of fever or trauma. The child was severely malnourished and dehydrated. Anterior fontanel was full but lax. Neurologically he was opening eye spontaneously, excessively crying and moving all four limbs. On local examination there was well healed linear operative scar along the line of cranial end of shunt tube, vicryl thread could be seen coming out through the skin and whenever the child was crying there was leakage of cerebrospinal fluid (CSF) from the suture site (Fig. 1). The wound was explored through the curvilinear incision well away from the shunt tube (Fig. 1). Hydrocephalus constitutes one of the major problems in neurosurgery and ventriculo-peritoneal shunt is the primary treatment for most etiologies of hydrocephalus in the pediatric population[2,3]. Complications related to shunt use are commonly classified as infectious, mechanical or functional 1 and may present with unique symptoms and signs[3,4]. We all are taught during neurosurgical training that ventriculo-peritoneal shunt is never a small procedure and should be performed very carefully. When performed meticulously this kind of complication in present case is always avoidable. Also using curvilinear incision rather than linear incision in the scalp helps to keep away the shunt parts away form the suture line.

This is a case report on a child with autism and mental retardation. He injures himself when it is warm. This case is the first report of thermal stimuli as a possible reason for self injury behavior in children with autism.

References


Use of Surgical Gloves for Covering in the Treatment of Gastroschisis

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A primary fascial closure is undoubtedly the best method for treatment of gastroschisis (GS). When the size of abdominal cavity is insufficient to contain the herniated viscera, a silo is needed. In emergency cases, application of such a silo depends on availability of prosthetic material, the medical facilities, and experience of the surgeon[1].

Recently some centers have experienced ward reduction without anesthesia and intubation which has not proved to be more beneficial than traditional surgical repair [2]. In our area due to unavailability of silastic silo or silicone we came to the idea of using surgical gloves as silo.

Nine newborn infants with GS were diagnosed after birth between 2003 and 2007 (six girls and three boys) (Fig 1) with a mean gestational age of 36.4 weeks (range 32-38 weeks).

Fig 1: Gastroschisis with evisceration of edematous, thickened intestinal loops

Two were born with cesarean section and seven with normal vaginal delivery. Birth weights ranged from 1700 to 3260gr (mean: 2130gr). Seven had only intestine and large bowel herniation, two had also stomach herniation through anterior abdominal fissure measuring 4-6 cm. No associated anomalies were found. Treatment started immediately after birth by stabilizing the infant and wrapping the herniated bowel with moistened sterile compresses in order to maintain body temperature and prevent contamination and water loss from the exposed bowel. A nasogastric tube (NGT) was inserted for aspiration of GI secretions.

Intravenous fluids and antibiotics (Ampicillin and Gentamicin) were administered. None of the neonates needed intubation before surgery but all of them were intubated post-operatively and were connected to ventilator for 2-6 days. The newborns were operated upon at 2 to 12 hours of life under general anesthesia except one who was operated at 24 hours of life due to late transmission to hospital. Surgery started by inserting a nasogastric tube and urinary catheter. After general anesthesia the bowels were irrigated with tepid saline. The possible presence of intestinal atresias and

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