

Self-induced penetrating rectal perforation by foreign body: an unusual event in childhood

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Traumatic rectal perforation is a very rare and dangerous emergency in childhood. We present a case of rectal perforation due to self-induced transanal impalement. *Ann Pediatr Surg* 7:25–26 © 2011 Annals of Pediatric Surgery

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Introduction

Traumatic rectal perforation is an uncommon diagnosis in pediatric population [1–4]. Most frequent causes are traumatic, commonly following falls and rectal impalement [2]. For the diagnosis of rectal impalement, special attention should be focused on the history of the patient and physical examination should be performed to discard sexual abuse. Therapeutic protocols are nearly the same as adult including primary repair of perforation site with fecal diversion [1]. Attention should be paid to associated injuries of intrapelvic organs.

Case report

A 15-year-old male patient was admitted to our clinic with complaints of sudden onset of severe abdominal pain, bilious vomiting, and rectal bleeding for 12 h. The body temperature was 40–41°C. He did not mention any type of trauma on history. Physical examination showed signs of acute abdomen and fresh blood on digital rectal examination. Pneumoperitoneum was detected on an erect plain abdominal radiograph (Fig. 1).

The patient proceeded to emergency explorative laparotomy. The exploration was performed by midline incision. One liter of fluid with intestinal contents was drained from the abdominal cavity. A 3 × 3 cm in diameter perforation site was detected on the anterior wall of the rectum at the level of peritoneal reflection (Fig. 2). There was no other associated injury in the abdomen and pelvis. The lumen of the rectum that was proximal and distal to the level of perforation appeared to be normal. The edges of the perforation site were excised and repaired primarily (Fig. 3). Protective diverting colostomy was applied.

The patient confessed self-performed transanal impalement by a cleaning mop handle postoperatively. Pediatric psychiatry consultation diagnosed this condition as erotism. The recovery period was uneventful, and the patient was discharged on the seventh postoperative day. The colostomy was closed 1 month later.

Discussion

Anorectal impalement injuries have favorable prognosis in childhood, being diagnosed early because of the traumatic

background of the injury. Among these injuries, the cases of intraperitoneal perforation or multiple trauma in adjacent pelvic organs constitute real emergency, and require a more careful examination. Different approaches in the management of traumatic rectal perforations are experienced ranging from primary closure alone in early presented cases to primary closure, fecal stream diversion, and debridement. In our opinion, the mainstays of the treatment protocol are admission time, patient's general condition, and the extent of injury. In our case, the misdiagnosis of rectal impalement was due to concealment of history by the patient himself. The postoperative history taken from the patient enlightened the event. Psychiatric consultation showed slight mental retardation that needed further investigations such as IQ test.

Fig. 1



Radiograph showing subdiaphragmatic free air.

Fig. 2

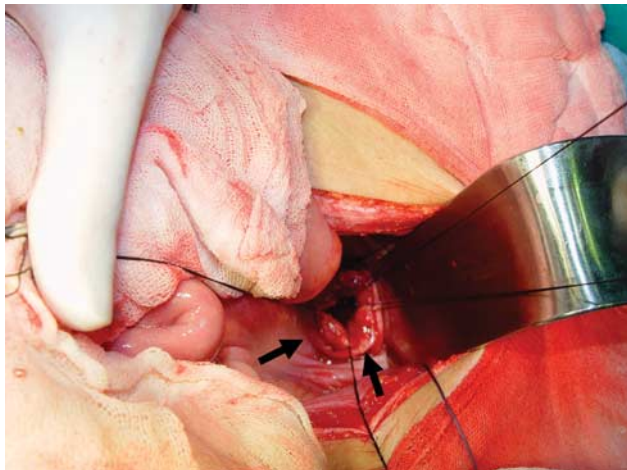


Image showing perforation site.

The condition was interpreted by the psychiatrist as autoerotism of adolescence, requiring conversational psychotherapy.

Structures such as the bladder, uterus, and rectum lie low in the pelvis of the child and are intraperitoneal rather than intrapelvic, making children more prone to injury. Lack of external findings does not rule out rectal perforation. The workup should include endoscopy to rule out bowel perforation, vaginoscopy in girls, and cystoscopy or urography to identify urinary tract injury, especially if hematuria is present [3]. The main complication after penetrating perineal injuries is wound infection with abscess formation and subsequently sepsis. This is why fecal diversion still stays as a mainstay of management [4,5]. Although lack in the number of cases and limited experience, anorectal impalements in childhood still have good prognosis being diagnosed and managed early [3,4].

Fig. 3

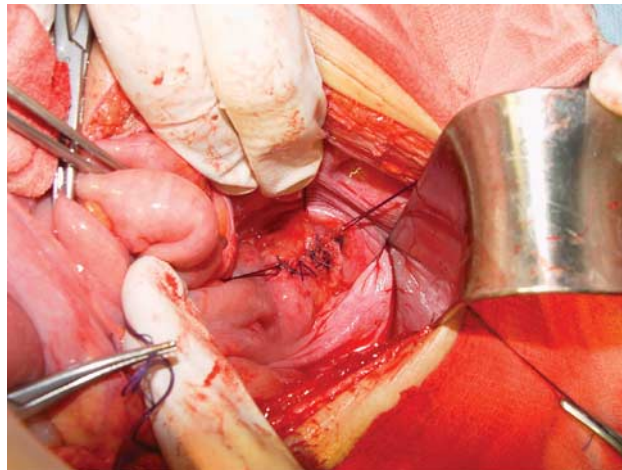


Image showing primary repair with interrupted absorbable sutures.

Careful history and examination are important to exclude sexual abuse. The interventions should be performed by well-trained pediatric trauma surgeons in the setting supported with intensive care unit.

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