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Case Report

Jejenoileal Perforation Secondary to Kick during Soccer Game with Negative Fast: A Case Report

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Abstract: Small bowel perforation is a rare injury following blunt abdominal trauma, and is rarely reported in a sports setting. Computed tomography (CT) appears to be the diagnostic method of choice to assess hemodynamic stable patients. A delay in diagnosis and definitive treatment of bowel injury may result in increased morbidity and mortality. Our case was a 16 years old male with abdominal blunt trauma, we diagnosed perforation of Jejenum and ileum with Laparatomy and negative FAST. The treatment for small intestine lesions with smaller defects is the primary closure while bowel resection is the treatment of choice for larger lesions and Ischemic segments.

Keywords: Abdominal injuries, Sports medicine, Intestinal perforation, acute abdomen, ATLS.

BACKGROUND

Small bowel perforation is a rare injury following blunt abdominal trauma, and is rarely reported in a sports setting [1]. It accounts for less than 0.3% of cases in patients with blunt abdominal trauma [1, 2]. Delays in the diagnosis and surgical treatment of small bowel injury are associated with significant morbidity and mortality [2]. Small bowel injury in a sports setting is a rare occurrence with a paucity of reported cases. Up to 2017, only seven cases had reported jejunal perforation resulting from sports activities [3]. This case is a show to improve the safety in sport and Physician concern more and more for abdominal traumas.

CASE PRESENTATION

Our case was a 16 years old male with abdominal pain referred to surgery part. Her GCS was 15 and blood pressure was 100/55 mmHg and heart rate was 90/min. In examination we understand generalized abdominal pain and no tenderness, thus we did FAST and was negative but with this evidence we did laparatomy and found perforation in jejenum and ileum separately.

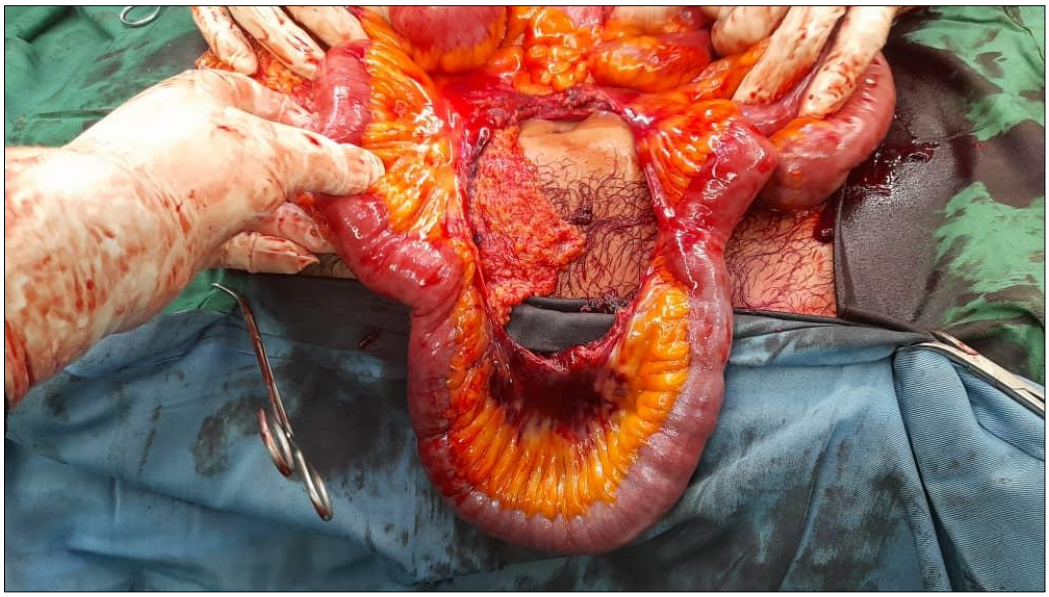

Figure 1: Injury in Jejunal Part

Because of size of damage we decide to do resection ischemic part and do Anastomosis.

Figure 2: Resection of Ischemic Part

Then we check other parts of GI tract and found multiple damage in ileal part of intestine.

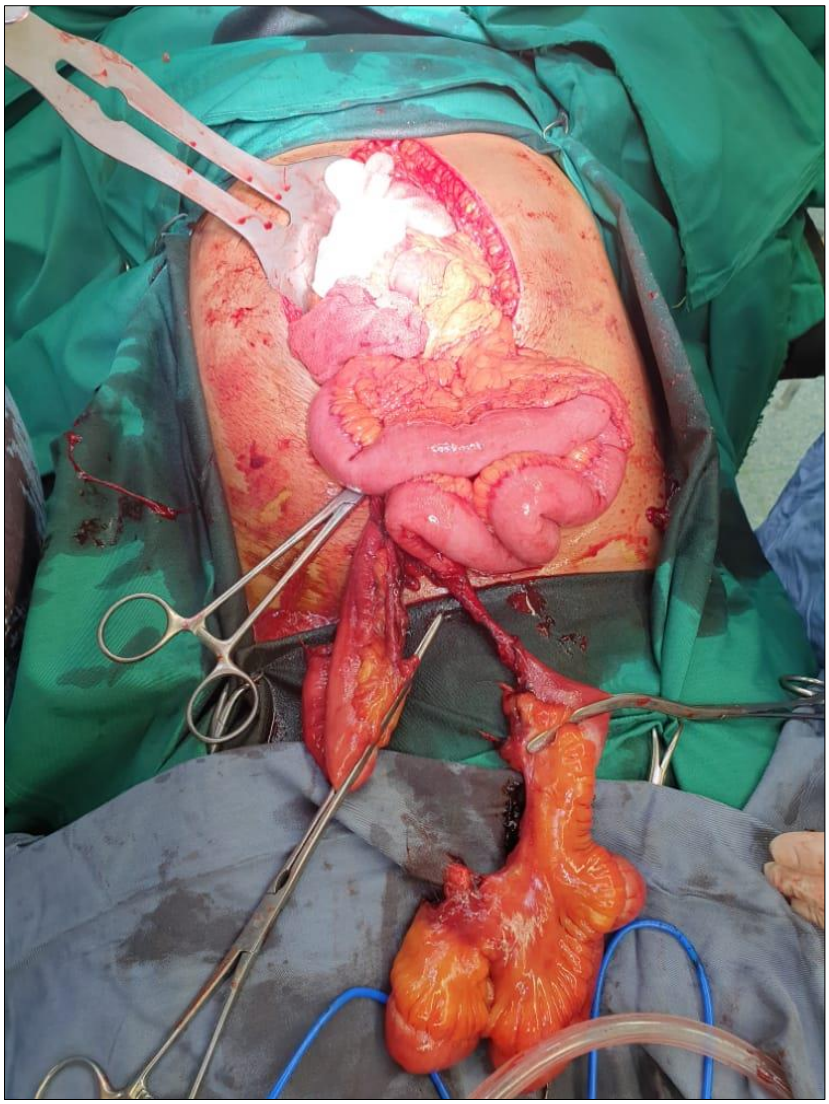

Figure 3: Ileal Injury

Figure 4: Resection of Ileal Damaged Parts

We resects damaged and ischemic parts of intestine and do anastomosis between healthy parts. After surgery we do GI rest and start eating carefully, and hopefully our patient to lerate this trauma and discharged successfully.

CONCLUSION

Unlike the penetrating injury patient in whom visceral injury is common, the blunt trauma patient rarely shows clinical evidence of visceral rupture. Solid organ injury and the resulting hemodynamic instability are a higher priority in the management of the blunt abdominal trauma patient, and blunt visceral injury is generally not suspected unless the clinical picture is highly suggestive [2, 4]. There is some debate in the literature on the mechanism of small bowel injury due to blunt trauma. Three mechanisms are commonly discussed: shear forces, compression between the abdominal wall and the spine, and burst injury due to a sudden increase in Intraluminal pressure [3-6]. Full-thickness perforations due to rupture forces are most common in the small intestine. In some series, burst injuries have tended to occur in the proximal jejunum, 15- 60cm from the ligament of Treitz [5]. Diagnosis of small bowel injuries is difficult, resulting in delayed treatment and increased mortality and morbidity. Early diagnosis is necessary for prevention of mortality and morbidity [4]. Pain is the most constant symptom, sometimes associated with vomiting or absence of peristalsis. Abdominal bruising is found in 70% of patients and abdominal tenderness occurs in 75% of cases [4]. When abdominal trauma is associated with other injuries or altered mental status due to head trauma or drug or alcohol use, clinical recognition becomes difficult. Laboratory testing is of little value. The sensitivity and specificity of leukocytosis were estimated at 84.8% and 55.2%, respectively, after small bowel injury [4]. Computed tomography (CT) appears to be the diagnostic method of choice to assess hemodynamic stable patients [4]. CT findings for small bowel trauma include free fluid without solid organ injury, thickening of the bowel wall, and mesentery striate or dilated bowel loops [4]. CT has a sensitivity between 69% and 95% [6]. In patients with blunt abdominal trauma a positive point-of-care Ultrasonography (POCS) findings are helpful for guiding treatment decisions. However, a negative POCS exam does not rule out injuries and must be verified by test such as CT [7]. Small intestine perforations are generally determined by the findings of peritoneal irritation. In hollow-organ perforations in the abdomen, free gas image is generally seen in the abdomen in direct graphs [8].

Taking this information into account, in the present case it was decided to defer the FAST ultrasound and perform a CT [8]. A delay in diagnosis and definitive treatment of bowel injury may result in increased morbidity and mortality [9]. In hemodynamic stable patients after blunt abdominal trauma, laparoscopy is an acceptable and successful alternative to laparotomy both as a diagnostic and therapeutic procedure [1-4]. The treatment for small intestine lesions with smaller defects is the primary closure while bowel resection is the treatment of choice for larger lesions and ischemic segments [5]. Children applying with blunt abdominal trauma should be followed closely. Although the radiological images are normal, it should be considered that small intestine injury may be present in the differential diagnosis in children [10].

Declarations

Ethical Approval and Consent to participate

The content of this manuscript are in accordance with the declaration of Helsinki for Ethics. No committee approval was required. Oral and written consent to participate was granted by the parents.

Consent for Publication

"Written informed consent was obtained from the patient's legal guardian for publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal."

Availability of Supporting Data: It is available.

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Authors' Contributions

Ahmad Reza Shahraki is the surgeon of patient and writes this paper. Reza Abaee collected Data's and Elham Shahraki reviews paper and nothing to disclose.

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The treatment for small intestine lesions with smaller defects is the primary closure while bowel resection is the treatment of choice for larger lesions and ischemic segments.

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