ACUTE PANCREATITIS: PHYSICAL CHILD ABUSE CASE PRESENTATION

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ABSTRACT

In this present case report, a 10 year old orphaned girl presented with an acute abdomen, was abused by close relatives\relative, which caused actual physical and emotional trauma to the girl.

INTRODUCTION

Child abuse is when harm or threat of harm is made to a child by someone acting in the role of caretaker. It is a worldwide problem with no social, ethnic, and racial bounds [(1)]. Child abuse has always been a topic often never discussed among the population; especially in the Asian region [(2)]. Physical abuse is that type of abuse done by intentional force on any part of a child's body that result in serious injuries. It may be a single incident or series of incidents [(3)]. Major blunt abdominal trauma due to child abuse is a serious, infrequent form of morbidity and mortality in childhood [(4)]. Among all abdominal injuries, duodenal and pancreatic injuries are the most characteristic injuries secondary to abuse [(5)]. Pancreatitis can be associated with either penetrating or blunt trauma, in the latter case resulting from compression of the pancreas against the spine [(6)].

Keyword: *Pediatric Acute Pancreatitis, Physical Child Abuse.*

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CASE REPORT

A 10 years old female referred to the pediatric surgical department at midnight as a case of an intestinal obstruction, presented with an acute onset abdominal pain, constant cramping and generalized, associated with nausea, bilious vomiting of large amount and absolute constipation for more than 3 days, they gave us a vague history of falling from height one week before admission.

On examination; the patient looked very ill and dehydrated with multiple new and old ecchymosis and scars all over her body (Fig.1). She was febrile (39°C), tachycardia, abdomen was hugely distended, diffusely tender and rigid. Bowel sound was exaggerated.

On digital rectal examination, the rectum was empty, no mass, nor other anomalies.

Resuscitation started with fluid and electrolyte replacement, antibiotic, placing nasogastric tube (immediately drain more than 500ml, increased to 2000 ml within 2hrs).

Abdominal X-Ray, showed dilated bowel loops with multiple air fluid level (Fig. 2). Abdominal U/S; Dilated loops of non Peristaltic bowel and Perforated, appendix should be excluded .CTs was not available.

White blood cell count (12,000 cc/mm3), Haemoglobin (10.5 g/dl), Serum Na level (136 mmol), Serum K level (4 mmol), random blood sugar (110mg/dl), serum lipase (125 u/l), serum amylase (103 u/l), T.S.B (1 mg/dl).

From the past social history of the patient, she was a child being raised by her aunt and uncle, because her father died and her mother left her and got married. The differential diagnosis was intestinal obstruction, pancreatic injury with or without other solid organ injury.

We asked for a police paper and transferred her to the operative theater. On exploration there was a hugely dilated loop of small bowel, with adhesion between the loops of ileum. Multiple areas of Saponification on the greater momentum and abdominal wall were noticed, we released the bowel adhesions, decompress the bowel by evacuating the content, explored the pancreas which looked edematous and necrotic with a lot of fluid collection, with no frank pus. Pancreatic debridement was done and taking tissue for hitopathological examination, peritoneal fluid sampling for bacteriological and cytological examination and mesenteric lymph node biopsy. After all loose debris has been removed the retroperitoneal cavity was irrigated with several liters of normal saline solution. Abdominal wall closed in layer, drain left. With intensive management post operatively, the patient discharged well after 7 days. The biopsy was consistent with fat necrosis and fibrosis, Cultures and gram-stain were negative, with evidence of inflammation.KSC foundations, and child abuse department was informed about the case.

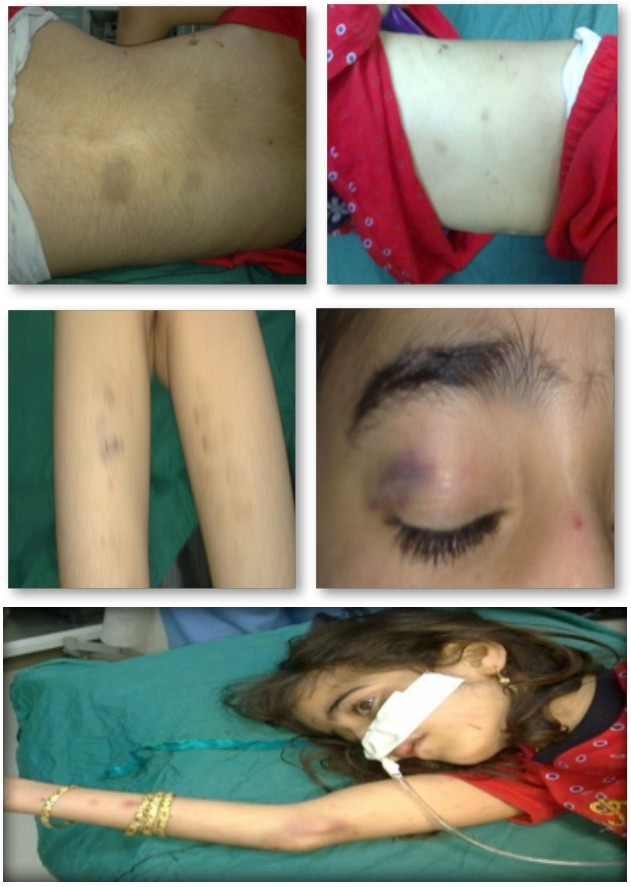

Figure 1. Showed multiple ecchymoses and scars all over the body.

Figure 2. Abdominal X-Ray film.

DISCUSSION

This case represents a physical child abuse, presented with an acute abdomen, with no definitive history. According to the operative finding, it was diagnosed as a case of an Acute Pancreatitis, most likely it was secondary to blunt abdominal trauma.

Although the prevalence of pancreatitis associated with trauma is probably not as high as previously thought, trauma remains an important cause of pancreatitis. Most often, unintentional blunt trauma causes damage to the pancreas, but child abuse can result in traumatic pancreatitis as well [7]. Among 29 cases were reported in a study (Abdominal injury due to child abuse), two patients had pancreatic injuries [8].

Ultrasound for abdomen did not show any sign of pancreatitis, The pancreas is not seen on the ultrasound in approximately 6–14% of children, the percentage increases when pancreatitis is present because of increased bowel gas secondary to aerophagia and ileus [9, 10] .

Abdominal X-Ray showed hugely distended bowel loop. In traumatic pancreatitis there may be distention of a segment of the bowel, either of the transverse colon or the upper jejunum, due to enzymatic mesenteritis[6].

CT scan of abdomen was not available as emergency at that time, and although it is more sensitive than abdominal ultrasound in the diagnosis of pancreatic necrosis and fluid collections, but still have limitation. Bowel gas is not a limitation of CT; however, the inherent paucity of intraabdominal fat in children makes the evaluation of the organ more challenging. The use of CT may be of more value later in the course of acute pancreatitis in evaluating disease severity [10].

The degree of pancreatic injury may range from a relatively mild contusion to laceration and fracture [11]. This patient had pancreatic contusion with fluid, necrotic collection, with no frank pus. Pancreatic contusion is generally believed to involve rupture of minor or major components of the duct apparatus with consequent effects due to activity of liberated enzymes [6].

Grade III and higher grade pancreatic trauma need operative management (resection or possible reconstruction and/or drainage). However, a recent study shows some controversy and considers a non-operative management of high-grade pancreatic trauma [12, 13], but for this patient we decided surgical exploration because of vague and incorrect history regarding the first complain, actual duration, the mechanism of injury, and the cause for all other body parts echymosis and scars.

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