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Case Report

A Special Case Report on Small Intestinal Mesenteric Tear-A Rare Encounter

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Abstract

Mesenteric injuries can follow severe abdominal trauma or contusion and is a cause of hemoperitoneum. More commonly injured by torsional force so called seat belt injury, due sudden deceleration resulting in mesenteric tear. This possibility has to be kept in mind as you encounter polytrauma case. Apart from controlling ongoing hemorrhage, associated ischemic or ruptured gut will require resection. We report one such case of mesenteric injury following abdominal trauma.

Key words: Mesentery, Hemoperitoneum, Seat injury, Torsional injury

Introduction

Trauma is the major cause of mortality and morbidity in day to day life. Abdomen is the third most commonly injured following extremities and head injury. Early diagnosis and treatment can reduce mortality by upto 50%. The main causes of blunt trauma are motor vehicle crashes, direct trauma, and fall from heights. [1] Industrialization and further developing of the rural population increases the incidence of abdominal trauma as well as the significance of its evaluations. In rural area where bull gore injuries are common, early diagnosis of blunt trauma will improve the outcome. Reports show that more than 50% of mortalities are due to crashes led blunt trauma abdomen are preventable.[2]

Imaging and other modalities of investigations play a major role in arriving at a precise diagnosis in many cases. However financial constraints and non-availability of sophisticated investigations in many areas may be a limiting factor in arriving at a timely proper diagnosis. This explains the real need for an accurate and in hand method to evaluate the patients who require further surgical interventions circumstance precise management and in time laparotomy play a great role.[3] Mesenteric injury is one such which is most common and which endangers life of patient if necessary intervention is not taken at proper time. And one such case is discussed in brief following a trauma to abdomen.[4]

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Case report

A 40 year old elderly female patient presented to the emergency department of R L Jalappa hospital with sudden onset of pain abdomen and vomiting since 2 days. On further evaluation patient gives history of not passing stools and flatus since 2days. Jaundice since 3days.Physical examination reveals tenderness all over abdomen, guarding, rigidity and icterus (+++). Imaging modality failed in arriving at proper diagnosis, hence provisional diagnosis of acute intestinal obstruction secondary to either mass or perforation was suspected and

planned for exploratory laparotomy. On table, there was no perforation or mass noted instead a tear in mesentery was noted with small bowel loops herniating through rent which was causing intestinal obstruction.as shown in the picture. (Fig 1)

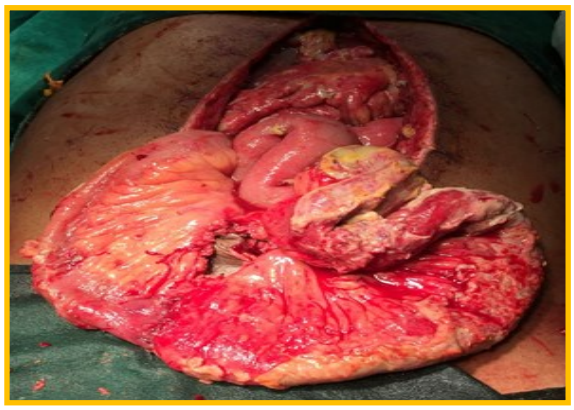

Fig 1. Mesentric Tear. No Obstruction seen

On table bowel was viable and hernial contents were reduced, no signs of mesenteric ischaemia were noted. Mesenteric rent was closed. as shown in Fig 2.

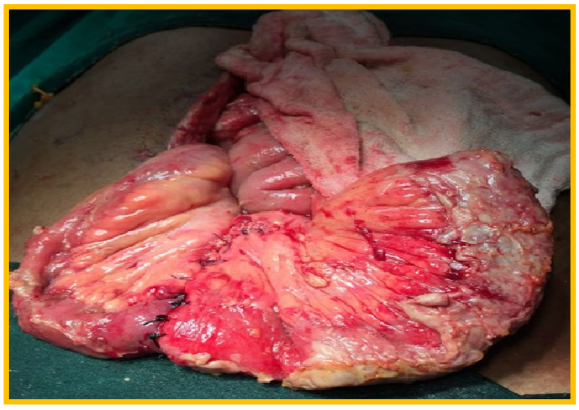

Fig 2. No signs of mesenteric ischaemia seen

No signs of hemoperitoneum or active bleeding noted. Abdomen closed in layers. Post operative period patient developed high grade fever and jaundice was not subsiding on further evaluation patient attenders revealed a blunt trauma to abdomen following assault. On post op day 10 patient started recovering slowly and gradually improved. Omental patch was sent for histopathology and suggestive of inflammatory pathology.

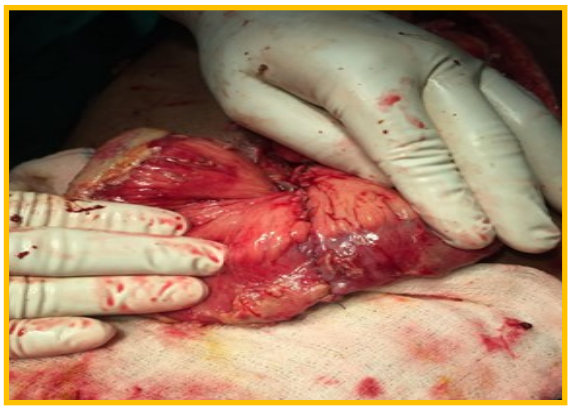

Fig 3. Closed Mesentric Tear

Discussion

Blunt and stab injuries as causes of intra abdominal injuries have been recognized since historical times. Aristotle was the first to record visceral injuries from abdominal trauma. Hippocrates and Galen are said to have given correct description of the condition. [5] Trauma is the leading cause of death and disability in developing countries and the most common cause of death under 45 years of age. World over trauma is the 7th cause of mortality and abdomen is the third most commonly injured. Abdominal injuries require surgery in about 25% of cases and 85% of abdominal traumas are of blunt character. The spleen and liver are the most commonly injured organs as a result of blunt trauma.[6]

Automobile accidents accounted for 53% of Blunt Abdomen trauma cases followed by commonest hollow organ injury was small bowel perforation. Most common small bowel injured was ileum. Other injuries which are encountered in blunt trauma patients are colonic injuries, renal injuries, bladder injuries transection of stomach, artery thrombosis herniation of stomach through the diaphragm which accounted for 43% of blunt abdomen trauma. [7] Erect chest x-rays and erect abdomen x-ray may demonstrate a diaphragmatic rupture along with the gas under diaphragm suggesting of hollow viscous injuries.[8] However, in unconscious patient and patient with spine injury lateral decubitus may be useful in detecting small amount of gas. The erect abdo-

men x-ray exposes the patient 35 times the radiation dose of chest x-ray(0.7msv).[9] Diagnostic Peritoneal Lavage (DPL) was first used by Root in 1960. DPL which is used in situation of doubt with minimal signs or clinical situations that are difficult to interpret or in case of unconscious patient or in case of poly trauma with suspected intra-abdominal injury. The sensitivity is 95% and specificity is 99%. As it is an invasive procedure so it carries risk of visceral injury of about 0.6%.[10]

Conclusion

Blunt trauma abdomen is still mysterious for surgeon who is encountering emergency surgeries and mesenteric tear with internal herniation of small bowel presenting as intestinal obstruction is one such entity as diagnosis of the condition is made only intra operatively and preoperatively diagnosing this condition is very difficult and one of rarely encountered condition.

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