

**STAB INJURY TO ABDOMEN WITH EVISCERATION OF GUT - A CASE REPORT  
AND REVIEW OF LITERATURE****Dr. Cliffin Mathai Kattoor<sup>1</sup>, Dr. Akansha Singh\*<sup>2</sup> and Dr. Abhinav Kumar<sup>1</sup>**<sup>1</sup>Junior Resident Department of General Surgery, IGMC, Shimla.<sup>2</sup>Junior Resident Department of Anaesthesia and Critical Care, IGMC, Shimla.**\*Corresponding Author: Dr. Akansha Singh**

Junior Resident Department of Anaesthesia and Critical Care, IGMC, Shimla.

Article Received on 23/06/2022

Article Revised on 13/07/2022

Article Accepted on 03/08/2022

**ABSTRACT**

There is a rising trend of abdominal injury in the form of stab injuries all over the world. The etiology, clinical presentation, investigation modalities and treatment vary according to the mode, nature, region of abdomen involved and the severity of injury. We present a case report on an abdominal stab injury with eviscerated gut and a review of literature.

**CASE REPORT**

A 33 year old male under influence of alcohol presented to the emergency with history of stab injury to the abdomen following an altercation with a stranger. At presentation, vitals were as follows- Pulse rate - 110 per minute, BP -100/66 mm hg, SpO<sub>2</sub> - 92 % on room air.

On examination of the abdomen, there was a stab wound in the lower abdomen over the right lumbar region 3 cm lateral to the umbilicus through which a gangrenous segment of bowel was protruding outside. There was generalised peritonism and diffuse tenderness. The patient was resuscitated and immediately taken up for emergency exploratory laparotomy. Intra operatively, on assessment, there was a 5 cm stab wound through which a gangrenous loop of ileum was protruding out. Resection and anastomosis with end ileostomy and distal mucous fistula was done. 2 units of blood transfusion was given intra-operatively. Patient was shifted to ICU post operatively and made a complete recovery and was discharged on post operative day 8 with a functional ileostomy. He underwent restorative anastomosis after 3 months.

**Fig. 1: Eviscerated gut that protruded out through the stab wound which appears strangulated.****Fig. 2: Note the strangulated appearance of the gut as the patient lies on the operation table.****Fig. 3: Note the stab wound through which the gut has eviscerated.**

## DISCUSSION

The evaluation and management of abdominal stab injuries vary and there are numerous case reports and review of literature supporting different forms of evaluation followed by treatment modalities.<sup>[1]</sup> As with any patient of trauma, assesment should follow ATLS guidelines of A,B,C,D ( Airway, Breathing, Circulation, Disability ) to identify and correct any immediate threats to life.<sup>[2]</sup> Assesment of vitals including pulse rate, blood pressure, respiratory rate and oxygen saturation should be done.<sup>[3]</sup> Ressucitation of the patient with fluids, oxygenation, antibiotics and analgesics should continue along with the evaluation. Assesment of the site of the stab injury will give a vague idea as to which organ or organs may be injured.<sup>[4]</sup> Classically, in literature it is said that any penetrating wound that has breached the peritoneum should be explored.<sup>[4,5]</sup> Any protruding viscera like mesentery or bowel requires urgent exploration.<sup>[5,6]</sup> This classsical approach has been challenged in a few case reports and studies that advocate selective conservatism<sup>[7,8]</sup> as opposed to the classical exploratory approach even for cases with eviscerated viscera.

In a study by W S Stebbings et al , Forty seven patients had penetrating abdominal wounds, of which 28 (60%) required laparotomy. The jejunum was the organ most commonly injured, followed by the small bowel mesentery. In our case, the viscera involved was the ileum. In 177 cases (88%) the weapon was a knife as was in our case. Other weapons included screw drivers, scissors, broken glass, car aerials, swords and a bayonet. One hundred and twenty eight patients (64%) had been drinking alcohol at the time of injury similar to our case and 84 patients (42%) were unemployed. Of those undergoing laparotomy, 16 of 28 (57%) showed signs of peritonism (tenderness, guarding and rebound) as in our case and only 7 of 28 (25%) had absent bowel sounds. Six of 28 (21%) had evisceration of small bowel or omentum, and all of these cases had more than one organ injured. Considerable controversy exists regarding the management of penetrating abdominal stab wounds. One school of thought feels that mandatory exploration is essential, whereas others are of the opinion that as this leads to a high negative laparotomy rate, a selective approach should be used. The decision to operate was based on repeated clinical examinations, in order to note either the development of peritoneal signs or a change in the patient's vital signs. The main indications for laparotomy were signs of peritoneal irritation (tenderness, rebound, guarding and rigidity), unexplained shock or evisceration of abdominal contents. The presence of bowel sounds did not exclude intraabdominal injury. It is interesting to note that in this study all patients who had evisceration of either small bowel or greater omentum had significant intraabdominal organ injuries whereas in our case only the gangrenous segment of ileum was involved with no other solid organs involved. Granson & Donovan reported a 69% incidence of major intra-peritoneal injury in association

with omental evisceration. This study supports the selective approach to the management of abdominal stab wounds but feels that mandatory laparotomy is required in the case of evisceration.

It was concluded that many abdominal stab wounds can safely be managed without operation. The decision to operate or observe can be made exclusively on clinical criteria. Peritoneal penetration, air under the diaphragm, evisceration of omentum or bowel, blood found on abdominal paracentesis and shock on admission are not absolute indications for surgery.

In a study by D Demetriades,<sup>[1]</sup> among patients of abdominal stab injuries, all patients with signs of acute abdomen (tenderness, guarding, rebound tenderness, absent bowel sounds) were operated on immediately. Patients with no peritoneal signs or minimal signs (mild local tenderness) were managed conservatively.

It is generally accepted that omental or bowel evisceration is an absolute indication for an emergency operation. The author did not support this view, and in the study, treated conservatively 24 patients with omental evisceration and two patients with bowel evisceration with no mortality or morbidity. The radiologic presence of free air under the diaphragm is considered an absolute indication for surgery. The authors show that almost half of the patients with stab wounds in the abdomen could be managed conservatively with no mortality.

The decision to operate or observe can safely be made on careful initial and repeated clinical examinations. The presence of peritoneal penetration, omental or bowel evisceration, free air under the diaphragm, blood on abdominal paracentesis, and shock are not absolute indications for operation.<sup>[9,10]</sup> Although we assess these patients with great caution, the final decision to operate or not is made exclusively on the physical abdominal findings.

## REFERENCES

1. Demetriades D, Rabinowitz B. Selective conservative management of penetrating abdominal wounds: a prospective study. *Br J Surg* 1984; 71: 92-94.
2. Maynard A, Oropeza G. Mandatory operation for penetrating wounds of the abdomen. *Am J Surg* 1968; 115: 307-312.
3. Garland J. Stab wounds and other penetrating injuries of the abdomen and thorax. *Postgrad Med J* 1968; 44: 127-133.
4. Forde K, Ganepola G. Is mandatory exploration for penetrating abdominal trauma extinct? The morbidity and mortality of negative exploration in a large municipal hospital. *J Trauma* 1974; 14: 764-766.

5. Hopson W, Sherman R, Saunders J. Stab wounds of the abdomen: a 5-year review of 297 cases. *Am Surg* 1966; 32: 213-218.
6. Moss L, Schmidt F, Greech D. Analysis of 550 stab wounds of the abdomen. *Am Surg* 1962; 28: 483-489.
7. Bull J, Mathewson C. Exploratory laparotomy in patients with penetrating wounds of the abdomen. *Am J Surg* 1968; 116: 223-228.
8. Thal E. Evaluation of peritoneal lavage and local exploration in lower chest and abdominal stab wounds. *J Trauma* 1977; 17: 642-648.
9. Lowe R, Boyd D, Folk F, Baker R. The negative laparotomy for abdominal trauma. *J Trauma* 1972; 12: 853-861.
10. Nance F, Wennar M, Johnson L. Surgical judgement in the management of penetrating wounds of the abdomen: experience with 2212 patients. *Ann Surg* 1974; 179: 639-646.