



## THE STUDY OF BLUNT TRAUMA ABDOMEN ADMITTED IN SURGICAL EMERGENCY AND ITS OUTCOME

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### ABSTRACT

Blunt trauma abdomen is a common surgical emergency. In our study 60 cases of blunt trauma abdomen was studied. Majority of the injury were due to road traffic accidents. The common age group to be affected was 21 to 30 years. Pain abdomen, vomiting and rigidity were the most common presenting features. Exploratory laparotomy was performed in 48 cases while remaining were treated by conservative management. Out of 48 laparotomies, 4 cases died due to either delayed diagnosis or poor preoperative general condition of the patients.

**KEYWORDS** : Blunt trauma abdomen, perforation, pneumoperitoneum, ileostomy, colostomy

### INTRODUCTION-

Trauma has been defined as damage to the body caused by an exchange with environmental energy that is beyond the body's resilience.

Civilian trauma is one of the major causes of death all over the world. One of the commonest causes is a constant increase in RTA. Blunt trauma abdomen forms a very important segment of the whole gamut of injuries. Surgery still remains the best treatment for most patients with blunt trauma abdomen. The recent technologies have reduced the cases of exploratory laparotomy to some extent. The care of the trauma patient is demanding and challenging as well. Because sometimes it is not only blunt trauma abdomen but multiple injuries in the form of haemothorax, liver injury, spleen injury, bony injury and of course primary haemorrhage.

**MATERIAL AND METHODS-** Our study was conducted at JLNMC BHagalpur during January 2016 to February 2017. This is teaching hospital in the south east zone of Bihar covering north east zone of Jharkhand and west zone of West Bengal also. All patients were carefully assessed for vital signs like pulse, blood pressure, pallor and cyanosis. The patients were thoroughly examined for the sign of peritonitis, liver dullness and bruise over abdominal wall. All quadrants paracentesis done. After preliminary blood examination and plain x-ray abdomen, other specific investigation like USG and CT scan were performed. A decision of laparotomy was taken by our team and patient was shifted to casualty operation theatre for urgent laparotomy.

**RESULTS-**Total 60 patients were admitted with blunt trauma abdomen and associated injuries. Majority of the patient belonged to the 21 to 30 years age group. RTA was the most common cause, mostly involving pedestrians or two wheeler rider followed by fall from height. Bony injury was the most common associated extra abdominal injury followed by chest injury, pelvic injury and head injury. The most common symptom of blunt trauma abdomen was pain abdomen followed by features of peritonitis, chest pain, shock and abdominal distension.

X ray and USG were the most common noninvasive investigations followed by CT Scan. Abdominal x ray and four quadrant paracentesis were the primary tool for the diagnosis of haemoperitoneum and pneumoperitoneum. Most common indication for surgery was clinical sign of peritoneal irritation followed by pneumoperitoneum and hypovolemic shock.

After the operation, 4 patients died on the 2nd post operative day. Out of 4 died patients, 2 patients were transferred very late from orthopedic department (10 day after the admission) while in other 2

patients general condition was very very low at the time of admission. Out of 60 patients, 12 patients were treated on conservative line while 48 patients needed operation. Out of 48 operated cases, 8 patients were having only minor injuries in the form of lacerations to the liver, spleen and mesentery. Primary repair or anastomosis was done in 28 patients while ileostomy or colostomy was done in 12 cases.

**DISCUSSION-** It is obvious from our study that early presentation has got better prognosis. The patients who presented within 24 hours, primary repair or anastomosis was the preferred choice in our study. Ileostomy or colostomy was recommended in those patients who presented late. Because in the early period the general condition of the patients and the status of the body tissue remains healthy. After the lapse of time general condition gets aggravated and tissue no more remains healthy. So any effort to do primary repair or anastomosis is at risk.

**CONCLUSION-** RTA and automobile accident have been responsible for most of the cases of blunt abdominal trauma. Men in the age group of 21 to 30 years were found to be mainly affected. So special attention has to be given to this age group regarding awareness programme by the government, parents and NGO. It is seen that there is delay in bringing the patients to the hospital. So it is very important to recognize the importance of the golden hours in the management of trauma patients.

To decrease the mortality and morbidity, patients should receive proper resuscitation by trained paramedical person to avoid haemodynamic instability. Proper transport system run by government should be available so that patients can be transported as early as possible. More specialised centres should be established with availability of surgeon, orthopaedician, radiologists, trained staff and good blood bank facility.

In our country RTA is a significant social burden which requires urgent attention. There is need for development of appropriate training and specific education system which should include primary trauma case course, public training of first aid, mandatory seat belt, compulsory helmet, roadside alcohol breath testing, transport facility for trauma victim and more specialized trauma centre. Early diagnosis and vigorous management should be adopted to reduce the morbidity mortality in patients with blunt trauma abdomen.

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