Abdominal injury as a result of both blunt and penetrating trauma has an appreciable mortality rate from haemorrhage and sepsis. This study represents the experience with blunt trauma to the abdomen of patients from a tertiary care Centre. The study was undertaken to know the demographic details, mode of injury, management and outcome of blunt trauma abdomen (BTA). All the blunt trauma abdomen cases admitted in RIMS Ranchi during period of July 2014 to September 2016. There were 55 consecutive cases of blunt trauma abdomen. Most common age group involved was 30-40 years followed by 20 to 30 year. Male and Female ratio was 3:1. Most common mode of injury was RTC 47.2%. Diagnosis was established in all cases by clinical examination, X-ray, ultrasound or CECT. Spleen (49%) was the commonest organ injured next Liver (21.8%), 67.2% (37 patients) of cases underwent successful conservative treatment and 32.7% (18) operative treatment. Mortality was 10%. Non operative management (NOM) for BTA was found to be highly successful and safe. Definitive indications for laparotomy were hemodynamic instability and peritonitis. Patients with initial Hemodynamic instability are associated with a high risk of NOM failure. USG (FAST scan) in haemodynamically unstable patients as compared to CECT in stable patients were investigations of choice. Associated injuries influenced morbidity and mortality.

**MATERIALS AND METHODS**

All the blunt trauma abdomen cases admitted in RIMS Ranchi during period July 2014 to September 2016. After initial resuscitation, detailed clinical history, physical examination, laboratory tests and x-rays, ultrasonography (FAST) was done to arrive at the diagnosis. CT scan was done in some of the cases. The progress of patients was closely monitored and decision was taken to either continue with conservative management or to undertake laparotomy. Inferences were made for various variables like age, sex, cause of blunt abdominal trauma, time of presentation of patient, various procedures employed, associated extra abdominal injuries, post-operative complications and mortality.

**RESULTS**

**Sex Incidence:** Out of 55 total cases of blunt abdominal trauma, 40 (72.7%) were male and 15 (27.2%) were female.

**Age incidence:** Patients of blunt abdominal trauma were divided in four age groups

In 14-20 age group total 7 (12.7%) cases were there out of which 4 were males and 3 were females. In 20-30 age group...
total 15(27.2%) cases were there out of which 14 were males and 1 was female. In 30-40 age group total 20(36.36%) cases were there out of which 14 were males and 6 were females. In >40 age group total 13(23.6%) cases were there out of which 8 were males and 5 were females.

Mode of Injury

Cause of blunt abdominal trauma in study population was as follows- road traffic accidents in 26(47.2%) patients, fall from height in 15(27.2%) patients, assault in 12(21.8%) patients and other causes in 2(3.6%) patients.

Clinical presentations

out of total 55 patients 5(9.09%) presented with abdominal pain, 8(14.5%) presented with demonstrable guarding and rigidity, 6(10.9%) presented with features of shock, 5(9.09%) patients presented with abdominal distension, 1(1.8%) patient presented with malena, and mixed sign & symptoms were seen in 30 (54.5%) cases.

Organs injured

In the study population solid visceral injury was found in 42(76.3%) patients, hollow viscus injury was found in 8(14.5%) patients and both hollow & solid viscera were injured in 5(9.09%) patients.

Time of presentation

Out of 55 cases, 26(47.2%) came to hospital within 12 hours of trauma; 16(29.09%) cases came within 12-24 hours after trauma and 13(23.6%) patients came after 24 hours of trauma.
Mortality in present study is low.

Following Conclusions Can Be Drawn From This Study

1. Conservative management is the treatment of choice in clinically stable patients. In patients not responding to conservative management or those with severe injuries; surgical treatment is needed.
2. Road traffic accident is the most common cause of such injuries. Road side safety measures and dedicated trauma centers near accident prone areas is necessary to limit the associated morbidity and mortality.
3. Males are more commonly injured in cases of blunt abdominal trauma. Incidence is highest in 30-40 years age group which is young and productive age group.
4. Plain X-ray abdomen is very useful investigation in blunt trauma abdomen cases more so in cases of hollow viscus injury.
5. Diagnostic peritoneal lavage; in recent times is not used commonly as it is invasive and can lead to unnecessary complications.
6. Ultrasound examination gives fairly good idea about solid organ injury and fluid collection. It has played important role in decreasing the popularity of diagnostic peritoneal lavage.
7. The most common viscera injured in present study is spleen followed by liver.
8. Small intestine is the most commonly injured hollow viscus in this study.
9. While most of the solid viscera injuries were managed conservatively; surgical treatment was very commonly needed in cases of hollow viscus injury.
10. Most of the patients in this study recovered without any complication.
11. Surgical wound infection was most common complication overall.
12. Other complications noted are; respiratory tract infection and fever, pancreatitis.
13. Mortality in present study is low.
14. A thorough and repeated clinical examination and appropriate diagnostic investigation is necessary for successful treatment of such patients.

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