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An Analytical Study on Abdominal Injuries

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ABSTRACT

Background: Abdominal injuries are seen with increasing frequency in emergency rooms continues to be associated with significant morbidity and mortality. Blunt abdominal injuries are usually diagnosed with the help of history physical examination, plain x-ray abdomen, ultrasound abdomen and CT scan. Isolated abdominal injuries rarely results in death. Aim of the study – To study the different presentations and types of abdominal injuries in our hospital. **Methods:** We have conducted this study in our hospital during the year February, 2014 to January, 2015. We have examined 150 cases; males were 120, females 30. **Results:** In our study we have examined 150 cases, males were 120, females were 30, and blunt injury abdomen were 95, penetrating injuries were 45, fire arm and blast injuries were 10 where stone crushing industries (quarry) use detonators. **Conclusion:** Abdominal injuries are very common worldwide and in India also. Emergency surgical facilities have to be improved in rural areas. Primary heath care centers should have diagnostic facilities like, X-ray and Ultra Sound.

Key words: Abdominal Injuries, Penetrating Injuries, Blunt trauma, Automobile accidents, Ultra Sound scan, Mortality, liver Spleen.

INTRODUCTION

Abdominal injuries are very common in surgical practice. Most common abdominal injuries are Blunt injury.[1,2] Blunt injuries are very common in daily practice. They may be due to heavy sticks, iron rods and sometimes with hands also. The patients who has sustained blunt abdominal trauma may have sustained injury simultaneously to other systems and it is particularly important to examine for injuries of head, thorax and extremities.[1,2] Males are more frequently involved in abdominal injuries, the common age group is 20 to 40 years that is active age group. These type of injuries may be due to accidents, fall from height clashes between groups. These injuries may be simple injuries to serious fatal injuries.[3] Automobile accidents accounted for 65% of injuries. Motor cycle accidents are minimal factors in this study. Renal contusions are managed by urologists they were not admitted in surgical wards, rib fractures were present in 3 cases mediastinal widening was seen in only 1 patient. None had mediastinal shift. Findings reported by other 8 Authors were presence of free fluid, abnormal renal shadows, retroperitoneal hematoma and displacement of normal gas pattern and associated extra abdominal injuries were encounter frequently.

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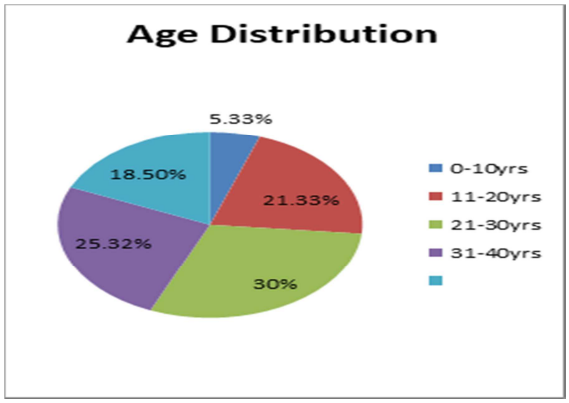
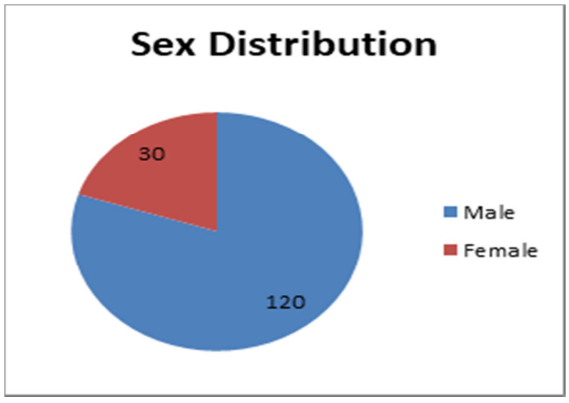
MATERIALS AND METHODS

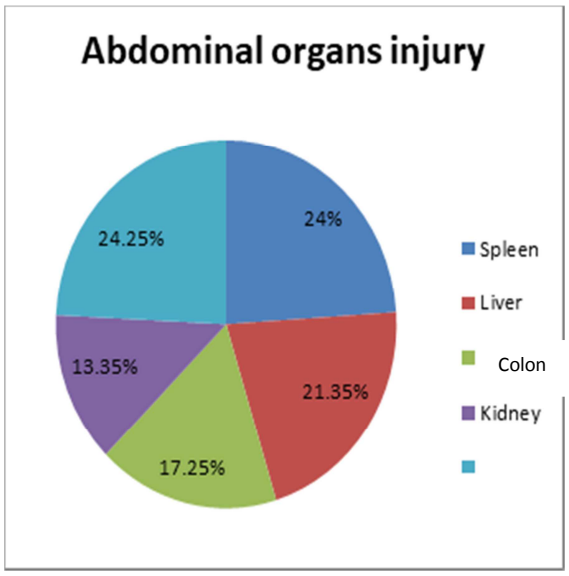
We have conducted this study in our hospital during the year February, 2014 to January, 2015. We have examined 150 cases; males were 120, females 30. These tend to increase morbidity and mortality frequently. The organs commonly involved in blunt injury abdomen are colon, spleen, liver gall bladder and urinary bladder, diaphragm, kidney.

Age group	No	Percentage – (150 pts)
0-10	8	5.33%
11-20	32	21.33%
21-30	45	30%
31-40	38	25.32%
Above 40	27	18.5%





Organ	No. of pts	Percentage – (150 pts)
Spleen	36	24%
Liver	32	21.35%
Color	26	17.25%
Kidney	20	13.35%
Mesenty & others	36	24.25%



Penetrating abdominal injuries were 45, 30 injuries are homicidal 15 are accidental injuries.

Accidental injuries are caused by vehicular parts, homicidal injuries are caused by stabbing with knife, axe and iron rods and also with fire arms. Organs injured are right and left colon, liver, spleen, urinary bladder, pancreas, mesentery, and major blood Vessels. Inflections like peritonitis is very common with penetrating injuries.[4]

Table: Sex distribution

Sex distribution	Number	Percentage (%)
Male	120	80%
Female	30	20%
Total	150	100%

We have examined 150 cases during the year Nov – 2014 to Oct – 2015. Blunt injury abdomen is 95, penalting injuries are 45 total males are 120 and females are 30.

RESULTS

Males are most commonly affected in abdominal injuries Active age group 20 years to 40 years is commonly involved in injuries. Automobile accidents accounts for more than 70% cases. Blows to the abdomen (17%) and falls (6%) were other causes. (5,6,7). In our study 83 patients belonged to 20 to 40 years age group (27%) 36 patients had spleen injury, 32 patients had (24.3%) liver injury. Colon and mesentery are other common organs involved.

DISCUSSION

General abdominal tenderness and abdominal guarding were most frequent signs, both signs were present in more than 75% patients.[8] 8 patients had rib fractures and extra peritoneal rupture of the urinary bladder 2 had associated rupture of membranous urethra. In present study the majority patients were between 2nd and 4th decade. Remaining patients are in extremes of age groups. The study conducted by Nilember and Agarwal reveals that people of most active and productive age group are involved in accidental injuries which add a serious economic loss to the country.[10]

In penetrating injuries the organs involved are spleen, liver, mesentery, kidney and Bowel. Most of the patients in this study had either single or 2 body regions involved.

Diagnostic procedures included laboratory tests, X-ray examination abnormal paracentesis, ultrasound abdomen and MRI Scan. 38 patients had abnormal finding on X-ray chest 21 patients had rib fractures. 8 patients have hemothorax, pneumo thorax or both, X-ray films of abdomen were abnormal in 28 patients.

Free intraperitoneal air in 9 patient's dilatation of Bowel in 18 patients.

Ultra Sound is used in the assessment of patients presenting with abdominal injuries, It is readily available, accessible and is non-invasive procedure with high patients acceptability, however ultrasound results are operator dependent challenges encountered in the course of US imaging in this study included the limitation of sonographic window when patients had skin abrasion and dressing on anterior abdominal wall.

CONCLUSION

Most of the abdominal injuries are blunt injury or penetrated injuries, blunt injury abdomen are mainly caused by accidents and fall from height penetrating injuries are homicidal. Majority victims belong to 2nd decade to 4th decade age group. Males were most commonly involved in abdominal injuries. The organs commonly involved in blunt injuries are liver and spleen. Colon and omentum are most commonly involved in penetrating injuries. So care has to be taken in reducing the morbidity and mortality in penetrating injuries.

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