



A Study on Cases for Outcome of Conservative Management of Abdominal Solid Organs Injuries Following Blunt Abdominal Trauma

KEYWORDS

CONSERVATIVE AND OPERATIVE MANAGEMENT OF ABDOMINAL SOLID ORGANS INJURIES FOLLOWING BLUNT ABDOMINAL TRAUAMA

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ABSTRACT Abdominal trauma is one of the most common causes among injuries caused by mainly due to road traffic accidents. o Blunt abdominal injury is also result of fall from height, assault with blunt objects, sport injuries, industrial mishaps, bomb blasts and fall from riding bicycles. Hence its conservative and operative management is given importance here.

INTRODUCTON

Abdominal trauma is one of the most common causes among injuries caused by mainly due to road traffic accidents.

Blunt abdominal injury is also result of fall from height, assault with blunt objects, sport injuries, industrial mishaps, bomb blasts and fall from riding bicycles.

Blunt abdominal trauma is usually not obvious. Hence, often missed,unless,repeatedly looked for.

Due to the inadequate treatment of the abdominal trauma,most of the cases are fatal.

The knowledge in the management of blunt abdominal trauma is progressively increasing due to the in patient data gathered from different parts of the world.

In spite of best techniques and advances in diagnostic and supportive care, the morbidity and mortality remains at large.

The reason for this could be due to the interval between trauma and hospitalization,delay in iagnosis,inadequate and lack of appropriate treatment,post operative complications and associated trauma especially to head,thorax and extremities.

AIMS AND OBJECTIVES OF THE STUDY

- 1.To evaluate the impact of blunt abdominal trauma on intraperitoneal solid organs like liver,spleen, kidney,pancreas.
- 2.To evaluate various modes of presentation in blunt abdominal trauma.
- 3.To evaluate various available investigations For early diagnosis.
- 4.To evaluate various modalities of treatment available for solid organs injuries with aim to reduce the mortality and morbidity.
5. To evaluate common complications.

6.To evaluate the failure rate of conservative management of blunt abdominal trauma.

7.To Compare Management of Blunt Abdominal Trauma

Commonest organs injured (international series)

The most common organ to be involved is the spleen. The following tables hows the frequencies with which different abdominal organs are injured in a blunt abdominal trauma, according to international series

Organ involved	Relative incidence (%)
Spleen	46
Liver	33
Mesentery	10
Urologic	9
Pancreas	9
Small bowel	8
Colon	7
Duodenum	5
Vascular	4
Stomach	2

Materials and methods

The 100 cases were studied of **BLUNT ABDOMINAL TRAUMA FOLLOWING TRAUMA** in civil hospital ahmedabad asarwa.the information was recorded In planned set proforma on the basis of references available in the literature And with guidance of my teachers experience.

After filling the details of proforma master chart was prepared.detailed analysis was done and varios observation derived,discussed and concluded.

DIAGNOSTIC METHODS

The following are the useful diagnostic methods in blunt abdominal trauma.

1. Ultrasound of the abdomen.
2. Plain radiography and contrast studies.
3. Diagnostic peritoneal lavage(DPL)

4. Abdominal CT scan.
5. Angiographic studies.
6. Radionuclide imaging
7. Laparoscopy.

OBSERVATIONS AND DISCUSSION

Highest incidence is noted in age group 21-30 years highly susceptible because they are more exposed to outdoor work and the increased incidence of vehicular accident in this age group. This is comparable to Gupta et al. Study for blunt abdominal trauma in which the most affected group was 21-30 years.

Males are more vulnerable because there are more chances of road traffic ,industrial And sports accidents.this is comparable with the study of Gupta et al.(1996) in which males were more affected.

Road traffic accidents list the most common mode of blunt abdominal trauma.Second most common mode of injury is assault and fall down.Front seat passengers and drivers are at maximum risk.

About 71% patients were able to reach at casualty within 6hours of injury.This is the reason for morbidity in caes of blunt abdominal trauma.

Most common organ injured following blunt abdominal trauma is spleen followed by bladder.pancreas.liver.kidney....

In this study we find that half of cases of blunt abdominal trauma patients were associated with some other injures means polyauama.among which head injury and injury to chest..pelvis were most common.

Out of 100patients with blunt trauma.41patients have undergone exploratory laparotomy and 63 patients were treated conservatively out of which 4patients converted to exploratory laparotomy after few days..

Cases converted to exploratory laparotomy due to

- 1)Fall in hematocrit and vitally unstable
- 2)abdominal distension and severe abdominal pain
- 3) Fall in hematocrit and vitally unstable
- 4) Fall in hematocrit and abdominal distension

Out of 100patients with blunt trauma 17 patients have developed complications following exploratory laparotomy like fever,jaundice,wound infection.

The best diagnostic tool for early diagnosis is ultrasonographyof abdomen and pelvis which helped in diagnosis of liver,spleen,pancreas,bladderinjuries.CECT abdomen –pelvis was helpful in diagnosis of mesenteric andpancreatic injuries.X-RAY were used to diagnose bowel injuries.

In this study all patients had complaint of pain in abdomen.so pain was the most common symptom at presentation to casualty followed by abdominal distension and vomiting.

MORBIDITY AND MORTALITY

A total of Five patients died in the present study. five patients belonged to operative group and died in the post-operative period, majority of them due to peritonitis and septicaemia following bowel injury and splenic injury.

Therefore the mortality rate in this study is 5%. This is comparable to Gupta et al. study(1996)in which 10 % mortality rate was present

COMPARISION

Study	Total Cases	Operated	NOM	Success NOM	Mortality
MY Study	100	37	63	59(94%)	5(5%)
IJMSPH	75	55	20	18(90%)	7(9%)
Gupta et al	63	43	20	18(90%)	6(10%)

IJMSPH-International Journal of Medical Science and Public Health

NOM- Non Operative Management

Point	My Study	Gupta et al	IJMSPH
Age(M/C)	21-30 Yrs	21-30 Yrs	21-30 Yrs
Sex(M/C)	Male	Male	Male
Mode Of Injury(M/C Cause)	RTA	RTA	RTA
Organ Involved(M/C)	Spleen	Spleen	Spleen
Best Diagnostic Modality	USG	USG	USG
Common symptom At Presentation	Pain	Pain	Pain

M/C-Most Common ,RTA- Road Traffic Accidents

CONCLUSIONS

1. Males are predominantly affected. It is mostly seen in the age group of 21-30 years which form the young and reproductive group. These patients are usually from lower socio economic income group.

2. Road traffic accident forms the most common mode of injury. Hence measures should be taken to prevent these accidents and care of the victims at the accident site. Well established trauma care centers should be established at least at every District hospital. Measures for early transport of the patients from the accident site to the trauma center should be undertaken.

3.The best tool for the early diagnosis of blunt abdominal trauma is ultrasonography of abdomen.

4.conservative management is successful in carefully selected patients.

5. Ultrasound examination gives a clear picture of solid organ injury and free fluid.

6. The most common injured viscera in the present study is spleen and most of the patients operated for splenectomy.

7. Retroperitoneal hematoma was seen in some of patients

associated with renal injuries and pelvic fracture. Only minor renal injuries that were encountered were treated conservatively.

8. Associated extra abdominal injuries like head, thoracic and orthopedic injuries were found in 54 cases in the present study. These greatly influenced the morbidity and mortality of the patients.

9.63 number of patients had managed conservatively **out of which 4 patients converted to exploratory laparotomy after few days** and 37 patients had been operated exploratory laparotomy.

10. Postoperative complications like fever, jaundice ,wound infection ,respiratory problems,shock are common following blunt abdominal trauma.

11. This study shows mortality of 5%. 51

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