

Original Research Article

To study sex relation to blunt abdominal trauma & outcome, mortality and morbidity

Dr. Ajeet Singh Makkar¹ (Associate Professor), Dr. Sanjay Kumar Gohar² (Associate Professor), Dr. Sunil Kumar Gehlot³ (Associate Professor), Dr. Rakesh Pancholi⁴ (Associate Professor), Dr. Muffazzal Rassiwalla⁵ (Assistant Professor), Dr. Gourav Kumar Saxena⁶ (Assistant Professor) & Dr. Amol Deniel⁷ (Assistant Professor)

Dept. of General Surgery, Index Medical College Hospital & Research Centre, Indore, M.P.
1,2,3,4,5,6&7

Corresponding Author: Dr. Sanjay Kumar Gohar

Abstract

Background & Methods: The aim is to study sex relation to blunt abdominal trauma & outcome, mortality and morbidity. Patient who reported to hospital with history of blunt abdominal trauma but on examination showed no distant symptoms and sign of abdominal injury and/or give conservative line of treatment.

Results: Over -all mortality 14.4 % in the period of study out of those patients who were discharged or had improved, 410 i.e. 82% of cases were improved without complication and 18 i.e. 3.6 %cases were improved with any of above said complications.

Conclusion: Male comprised 80.4% of study. Most patient's hospital stay is 7- 12 days. Emergency laparotomy is most common surgical procedure 232 (46.4%). Trauma centers should be modernized and fully equipped with emergency drugs and surgical instruments along with adequate manpower. Help line and support centers should be established in coordination with emergency response teams to prevent death/morbidity.

Keywords: modalities, abdomen, abdominal & trauma.

Study Design: Observational study.

1. Introduction

Trauma (from Greek "wound"¹) also known as injury, is a physiological wound caused by an external source. The term trauma encompasses a wide range of insults to body and it can also be described as "a physical wound or injury, such as a fracture or blow"[1]. Unintentional and intentional injuries were the fifth and seventh leading causes, accounting for 6.23% and 2.84% of worldwide mortalities, respectively in the 2002 World Health Organization estimates of causes of death by rate[2].

The art of surgery originated under the compelling influence of some immediate crisis. Our earlier ancestors were isolated in a hostile world and were obliged to carry on ceaseless struggle to obtain food and shelter and protect themselves from their enemies. The first man quickly became familiar with the sight of wounds[3]. One of the first things that a wounded man would do, whatever the nature of his injury to protect it from the influence of external forces or agents. For this there was and is to this day, only one means-the application of leaf or a tree or shrub[4].

Before 17th Century, medical practitioners poured hot oil into wounds in order to cauterize damaged blood vessels, but French surgeon Ambrose Pare (1510 – 1590) challenged the use of this method. Ambrose Pare father of modern surgery cleansed traumatic wounds and discontinued cauterization, repolarized ligature for bleeding blood vessel[5].

2. Material and Methods

Study was conducted at Index Medical College Hospital & Research Centre, Indore for 01 Year, On admission to hospital patient s name, age, sex, address, registration number, and, date and time of admission, length of delay in treatment taken noted and Nature of weapon also noted.

If patient was conscious and not under the effect of any narcotic drug or alcohol his presenting complaint, detail history and time of trauma noted mainly pain , vomiting, distension of abdomen, hematuria , air hunger etc. exact site of injury was recorded according to region mentioned. Injury by blunt object group include patient who sustained injury due to assault by fists and blows, lathi ,iron rods/kicks or received accidental animal kicks over abdomen or got injured due to fall of some heavy object like log ,gravel, got buried in mine or had rolled down the stairs or stumbled over some blunt object.

Patient who reported to hospital with history of blunt abdominal trauma but on examination showed no distant symptoms and sign of abdominal injury and/or give conservative line of treatment, and in due course showed improvement, without any deterioration and not admitted in hospital are excluded from study.

3. Result

TABLE No. 1: INCIDENCE MALE TO FEMALE

Male	Female	Total
402	98	500
80.4%	19.6%	100%

There were over all 402 males (80.4%) and 98 female (19.6%).

TABLE No. 2: INCIDENCE OF CONSERVATIVE AND OPERATIVE TREATMENT

	TOTAL	Percentage
CONSERVATIVE	268	53.6
OPERATIVE	232	46.4
TOTAL	500	100

In patient of BAT treated conservatively is 268, (53.6%) In patient of BAT treated operatively 232(46.4%).

TABLE No. 3: RALATIONSHIP BETWEEN MODE OF TREATMENT AND HOSPITAL STAY

Hospital Stay In Days	TOTAL	Percentage
0-3	152	30.4
4-6	100	20
7-12	182	36.4
>12	66	13.2
Total	500	100

Table shows that approx. 182 i.e. 36% case require hospital stay 7-12 days while 152, i.e. 30.4% cases required less than 3 days. Only 66, i.e.13.2 % case required hospital stay more than >12 days. 100, i.e.20 % cases required hospital stay in between 4 to 6 days.

TABLE No 4: Mortality and morbidity incidence

Morbidity & Mortality	TOTAL	Percentage
Death	72	14.4
Improved with out complication	410	82
Improved with complication	18	3.6
TOTAL	500	100

Table shows over -all mortality 14.4 % in the period of study out of those patients who were discharged or had improved, 410 i.e. 82% of cases were improved without complication and 18 i.e. 3.6 %cases were improved with any of above said complications.

4. Discussion

Most of the patients in our study were an M:F ratio of 3.7:1. A total of 926 patients were treated for blunt trauma by the Pietermaritzburg metropolitan services in South Africa. According to national and international data, blunt abdominal trauma is more common in men. The male-to-female ratio is 60:40[6].

As interest in laparoscopic procedures has increased among general surgeons, there has been speculation regarding the role of diagnostic laparoscopy (DL) in the evaluation of BAT. One of the potential benefits postulated is the reduction of nontherapeutic laparotomies[7&8]. With modification of the technique to include smaller instruments, portable equipment and local anesthesia, DL may be a useful tool in the initial evaluation of BAT. Although there are no randomized, controlled studies comparing DL to more commonly utilized modalities, experience at one institution using minilaparoscopy demonstrated a 25% incidence of positive findings on DL, which were successfully managed nonoperatively and would have resulted in nontherapeutic laparotomies[9&10].

Although its ultimate role remains unclear, another modality to be considered in the diagnostic evaluation of BAT is visceral angiography. This modality may have diagnostic value when employed in conjunction with angiography of the pelvis or chest, or when other diagnostic studies are inconclusive[11].

5. Conclusion

Male comprised 80.4% of study. Most patient's hospital stay is 7- 12 days. Emergency laparotomy is most common surgical procedure 232 (46.4%). Trauma centers should be modernized and fully equipped with emergency drugs and surgical instruments along with adequate manpower. Help line and support centers should be established in coordination with emergency response teams to prevent death/morbidity.

6. References

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