TO STUDY MODALITIES FOR EVALUATING THE ABDOMEN AFTER BLUNT ABDOMINAL TRAUMA

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Abstract

Background: This Study carried out in the Department of Surgery, Index Medical College Hospital & Research Centre, Indore both retrospectively and prospectively in patients with Blunt abdominal trauma.

Result: Table shows overall mortality 14.6% in the period of study. Out of those patients who were discharged or had improved, 214, i.e. 85.6%of cases were improved. Mortality maximum in patient BAT due to RTA 64.52% and Mortality minimum in patient BAT due to fall from height 20%.

In 116 laparotomy patients in blunt abdomen injury there were 219 internal organ injuries founded. Among these injuries hemoperitoneum, 94 cases i.e.37.6% was the most common, intr-op finding in BAT patient. Small intestine (ileal >jejunal) injury 45 cases i.e.18% was most common hollow viscous injury in BAT patient and pancreas is least common 1 cases. i.e. 0.4%. Involved organ in BAT. In solid organ injury there were maximum incidence of liver injury 34 cases. i.e. 13.6% followed by spleen 26 cases i.e.10.4%and kidney & ureter 11 cases. i.e. 4.4%.

Conclusion: Improving the social morale of people especially the younger generation by providing Good education, Employment, Preventing Alcohol Abuse Proper law enforcement and some form of penalty regarding proper vehicle driving.

Keywords: Modality, Abdomen & Blunt Abdominal Trauma.

Introduction

Blunt abdominal trauma is quite common since previous time and increasing day by day in emergency clinics. Many of time this injury is life threatening and require urgent treatment.1

Blunt abdominal trauma can result in laceration of solid organ usually causing bleeding which in its most severe form manifest as hemorrhagic shock or as visceral perforation of GI tract. Abdominal compartment syndrome is now recognized as a frequent confounder of surgical critical care following blunt abdomen trauma.2

With increase in accidental taken as a resort. It is not uncommon to see increase in the incidence of the blunt abdominal trauma in the civilian life. Trauma has been called the neglected disease of modern society, despite its close companionship with man. Trauma is the leading cause of death and disability in developing countries and the most common cause of death under 45 years of age.3 World over injury is the 7th cause of mortality and abdomen is the third most common injured organ.

Material & Method

Study carried out in the Department of Surgery, Index Medical College Hospital & Research Centre, Indore both retrospectively and prospectively in patients with Blunt abdominal trauma over the period of from June 2017 to May 2019 for 03 years with co-operation of the staff of (1) Medicolegal section (2) Central record room and the help of the residents looking after the admitted patients.

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.

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.

Inclusion Criteria
This series includes all homicidal, suicidal and accidental, blunt abdominal trauma. Of those who were admitted, the records were collected from the central record room and ward paper were also studied operative notes.

Statistical analysis
Data were analyzed with IBM Software SPSS Version 20.0 & in MS Office Excel Sheet.

Results:

### TABLE 1: RELATIVE INCIDENCE OF MOT AND MORTALITY

<table>
<thead>
<tr>
<th>MOT</th>
<th>No of Cases</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTA</td>
<td>155</td>
<td>10</td>
</tr>
<tr>
<td>Assault</td>
<td>23</td>
<td>7</td>
</tr>
<tr>
<td>Fall</td>
<td>40</td>
<td>8</td>
</tr>
<tr>
<td>Falling blunt object over body</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>250</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

Table shows overall mortality 14.6% in the period of study. Out of those patients who were discharged or had improved, 214, i.e. 85.6% of cases were improved. Mortality maximum in patient BAT due to RTA 64.52% and Mortality minimum in patient BAT due to fall from height 20%.

### TABLE 2: INCIDENCE OF INTERNAL ORGAN INJURIES

<table>
<thead>
<tr>
<th>Internal Organ Injuries</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver</td>
<td>10</td>
<td>17</td>
<td>07</td>
<td>34</td>
</tr>
<tr>
<td>Small intestine</td>
<td>13</td>
<td>23</td>
<td>09</td>
<td>45</td>
</tr>
<tr>
<td>Spleen</td>
<td>06</td>
<td>12</td>
<td>08</td>
<td>26</td>
</tr>
<tr>
<td>Hemoperitoneum</td>
<td>28</td>
<td>40</td>
<td>26</td>
<td>94</td>
</tr>
<tr>
<td>KUB</td>
<td>02</td>
<td>06</td>
<td>03</td>
<td>11</td>
</tr>
<tr>
<td>Other(stomach, pancreas, Colon)</td>
<td>01</td>
<td>05</td>
<td>03</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>60</td>
<td>105</td>
<td>46</td>
<td>219</td>
</tr>
</tbody>
</table>

In 116 laparotomy patients in blunt abdomen injury there were 219 internal organ injuries founded. Among these injuries hemoperitoneum, 94 cases i.e.37.6% was the most common, intr-op finding in BAT patient. Small intestine (ileal >jejunal) injury 45 cases i.e.18% was most common hollow viscous injury in BAT patient and pancreas is least common 1 cases. i.e. 0.4%. Involved organ in BAT. In solid organ injury there were maximum incidence of liver injury 34 cases. i.e. 13.6% followed by spleen 26 cases i.e.10.4%and kidney & ureter 11 cases. i.e. 4.4%.

Discussion
In this study, blunt injury of abdomen cases accounted for Total 250 cases i.e. (.683%) total admission on surgical side. The incidence of blunt
injury of abdomen in the prospective and retrospective group was 170 (.706%) and 80 (.647 %) respectively. Incidence of this nature more obvious in a civilian institution like our in this country. Higher incidence in the retrospective group was simply because there is marked reduction in total admission in surgical beds.

There were 488 patients with abdominal trauma with 440 penetrating injuries (240 firearm wounds; 200 stab wounds) and 48 blunt injuries in a prospective study of patients with abdominal trauma in one surgical ward at King Edward VIII Hospital in Durban over a period of 7 years, from 1998 through 2004. One review from the National Pediatric Trauma Registry by Cooper et al reported that 8% of patients (total=25,301) had abdominal injuries. Eighty-three percent of those injuries were from blunt mechanisms.

Retrospective study has been done at Department of Emergency Surgery, Clinical Centre of Serbia, during the period from January 2004. Blunt trauma (41.7%), gunshot wounds (30.5%), and stab injuries (27.8%). In 24 (66.7%) patients on admission Article.

Conclusion
Improving the social morale of people especially the younger generation by providing Good education, Employment, Preventing Alcohol Abuse Proper law enforcement and some form of penalty regarding proper vehicle driving.

References