

Research Article**Short-Term Results for Patients with Liver Trauma in a
Higher (Tertiary) Care Hospital**¹Ayesha Nadeem, ²Sana Javed,³Rana Sufyan Saeed and ⁴Rao Muhammad Akram¹MBBS, Nishtar Medical University Multan, Pakistan²MBBS, Nishtar Medical University Multan, Pakistan³MBBS, Allama Iqbal Medical College Lahore Pakistan⁴MBBS, Shandong Medical University, PR China**ABSTRACT**

Objective: To Evaluate the short-term outcomes (deaths) in patients with liver trauma in a surgical unit of a higher care hospital.

Study Design: A series of cases

Place and Duration: The study was conducted in general surgery Department of LUH, from January 2016 to September 2016

Methodology: All cases with hepatic shock were accepted of General Surgery Department. Complete routine laboratory investigations Carried out along with ultrasound and cross-sectional scans in those cases he was in need All cases were reported and attended on possible results and management. The surgical procedures were performed by senior counselors and skilled surgeons. Patients were followed for 2 weeks at Department after surgery according to department policy. we had observed the severity of the injuries, and their association with the short term Deaths were then entered into proforma results.

Results: 62% of cases were presented with severe abdominal trauma Was the frequent cause of hepatic infection. In most cases, 46% With third grade liver injury. The wound infection has been observed as the most complex after surgical management. The mortality rate was Found 10.0%, and was significantly associated with the severity of the infection (Fourth and fifth row) value of 0.001 p.

Conclusion: We concluded that short-term deaths were 10% in patients Having a liver shock, the mortality rate was significantly associated with the fourth grade and V of injuries. The most common cause of liver trauma was severe abdominal trauma.

Keywords: Abdominal trauma, liver trauma, and death rate

INTRODUCTION:

The liver is the largest strong organ of the abdomen with a stabilized position. The liver is a high blood vessel organ holding more than 25% lymphatic tissue of the body having both the blood and immune functions. Liver injury is the second most common event during abdominal trauma and is also a frequent cause of death estimated 20% to 40% patients [1]. Liver trauma is very regular in Pakistan due to shooting and road traffic accidents (RTA). 30% of liver injuries associated with penetrating agents, while 15 to 20% associated

with acute trauma of the abdomen in Pakistan [2]. While in developed countries the shock caused by Liver 20% due to severe abdominal trauma, 30% hepatic trauma is associated with a gunshot and 40% due to stab wound. It is very important that 50% hepatic trauma is not bleeding simple methods during the abdomen as; coagulation factors and deception can lead to liver injury management, but high quality liver trauma is very complex and difficult in management which has a high risk of mortality. Hepatotoxicity by 64%

[5].The management of "liver trauma" is the early control of bleeding, poisoning and prevention of ischemia. The right hepatic lobe is more frequent compared to the left lobe because it is large in size with less movement. 80% of liver trauma cases have other links to other body injuries. In current imaging studies and improved control control strategies have been turned into a model for managing liver trauma. Surgical management is the major challenge to liver trauma to surgeons. [6]surgical techniques including simple hepatic asthma, hepatic cutting, CT resection, dehydration measures along with anatomical resection, direct thread binding, liver pre-packing and liver transplantation. All of these surgical techniques depend on the type of liver trauma and severity and the good experience of skilled surgeons[7]. Such a study was not conducted on short-term results in patients with hepatocellular trauma in LumisJamshuru. This study was conducted to find out the short-term results (deaths) in patients with liver trauma admitted in the surgical unit of Hyderabad / Jamshuru.

METHODOLOGY:

This was a case study and was performed in the Surgery Department of LUH Jamshoro / Hyderabad. All cases were selected for ultrasound diagnosis and clinical examination. The sexes were selected with ages ranging from 18 to 70 years. All cases with other serious injuries related to head injuries were excluded, and these patients were kept discreet. Full routine laboratory investigations were performed along with (TABLE I)

ultrasound and cross-sectional scans in cases where they were needed. All cases were reported and attended on possible results and management. Written consent was taken from all cases. The surgeries were performed by skilled and senior surgeons. The cases remained in hospital for two weeks after surgery according to administrative policies. We observed the severity of the injury, its association with mortality in the short term and then the results were reported in proforma. The data were analyzed by SPSS 16. The simple frequency and the percentage of the qualitative variables were calculated and the mean of the quantitative variables was calculated. A square box test was applied to evaluate the association of short-term mortality with injury scores. The P value was considered to be large > 0.05. Found in 22.0% of cases, movement with breathing was observed in most cases 62.0%, wound or bruising was found in 40% of patients while 10.0% were normal clinical cases.

RESULTS:

Fifty cases were integrated into the study after the diagnosis of liver injury, mostly young patients, the average age was 35.6 + 15.4 years, males were found in the majority 39 (78.0%), while females were 11 (22.0%).The clinically stable abdomen was found in 22.0% of cases, and movement with respiration was observed in most cases 62.0%, wound or bruises were found in 40% of patients while 10.0% were clinically normal cases.

Table I: Demographic characteristics of the patients (n=50)	
Characteristics	Frequency (%)
Age (Mean + SD)	35.6+15.4
Gender	
Male	39(78.0%)
Female	11(22.0%)
Abdominal presentation	
Normal	05/(10.0%)
Distended	11/(22.0%)
Movement with Respiration	31/(62.0%)
Wound or Bruise	20/(40.0%)

Acute abdominal trauma was the most common cause of hepatocellular injury in 58% of cases while trauma was found in 42% of patients.

(FIGURE 1)

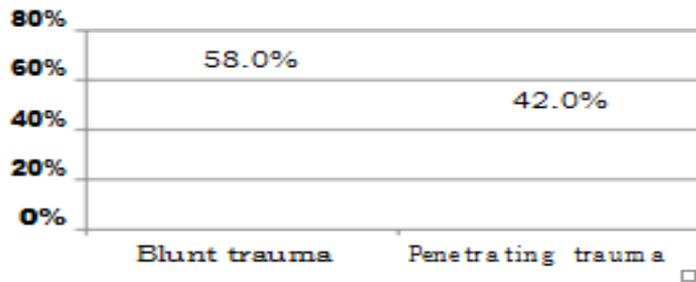


Figure1. Distribution of the patients according to mode of injury (n=50)

46.0% of cases with the third degree of hepatocellular injury by grade 1, 2, 4 and 5 were assessed by 6.0%, 24.0%, 20.0% and 2.0%, respectively. (Figure 2)

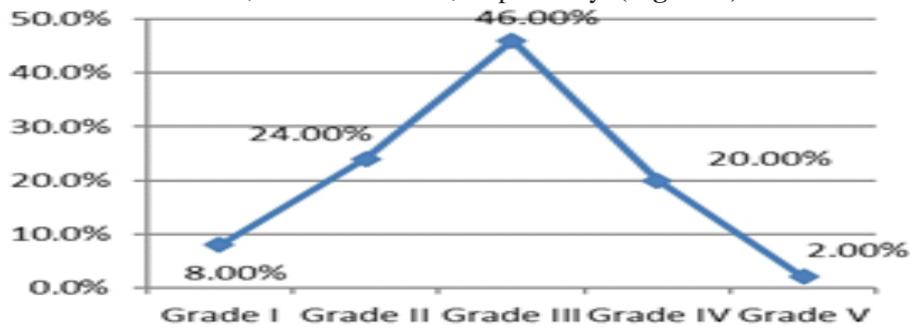


Figure 2. Grade of injury (n=50)

In this study a 10.0% mortality rate was found, while 90% of cases were found to be alive. Hospitalization was calculated as 12.9 + 3.5 days. (Table III) In this study we found short-term deaths significantly associated with severe injury (grade IV and V, P 0.001 (Table III)

Table II: Short term mortality and Hospital stay (n=50)	
Mortality	N. of pt(%)
Alive	45/(90.0%)
Death	05/(10.0%)
Hospital stay(days)	12.9+3.5 days

Table III: Short term association with grade of injury. (n=50)			
Grades of injury	Short term mortality		
	Alive	Death	P-value
Grade I	04	00	0.001
Grade II	12	00	
Grade III	22	01	
Grade IV	07	03	
Grade V	00	01	

DISCUSSION:

The liver is the high blood vessels and vital organ of the human body [8]. USSAMA ASHFAQ reported that of 364 cases, males were in the majority by: (M: F 5: 1) and ranged from 20 to 60 years, and the average age was 35 years. Similarly, we found in our study males in the majority 78% on the female comparison 22%, the average age of the patient was found 35.6 + 15.4 years with a range of 18-70 years. Male is predominantly involved in young age; this may be due to young males who are more involved in outdoor activities as compared to females. In our acute study, abdominal trauma was the most common in 62% of patients and a frequent cause of hepatic injury. Similarly, in various other studies, acute abdominal trauma is reported to be the recurrent cause of liver injury. 17-17 In favor of our study, demonstrated that the high mortality rate in patients with acute trauma of the abdomen. In contrast to the other hand, this study reported [9] that 75% of patients presented with abdominal penetration Essenio et al. showed that 79% of the cases had liver injuries due to an abdominal trauma. In our study, most cases were assessed by 46.0% with the third grade of hepatic infection by grade 1, 2, 4 and 5, 6.0%, 24.0%, 20.0% and 2.0%, respectively [10].

Similarly, most cases were in the second, third, fourth and percentage grades; 16.66%, 58.8% and 21.6%, respectively. Ali and others 19 reported that most patients had third grade liver injury as was 58.8% and 21.6% had fourth grade liver injury. In our study the short-term mortality rate was 10%. Similarly, the overall mortality rate was 12% and causes of death were reported complications; hemorrhage, sepsis, coagulation, renal failure [11]. Mortality rate was 11.8% and is associated with liver injury grade IV and V. Podaboroyan 20 said the survival rate was 76.6 percent. Bonariol et al. 23 found the mortality rate 15%. Fatanabrasan, 24, showed a 12.1% mortality rate. In this study, we found short-term deaths significantly associated with severity of infection (grade 4 and 5, P-value 0.001). In favor of this study, Pala Mt All 25 reported that patients with grade 5 liver injury were associated with high

mortality p 0.001 In some other studies it was also reported that low complication rate was associated with lower incidence of infection [12].

CONCLUSION:

We concluded that short-term deaths were 10% in patients with liver trauma, and the mortality rate was significantly associated with fourth and fifth grade infections. The most common cause of liver trauma was acute abdominal trauma. It's a Mostly middle-aged males of the population.

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