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Research Article

**CLINICAL STUDY OF PATIENTS WITH RUPTURED LIVER  
ABSCESS**<sup>1</sup>Dr. Tufail Ahmed Baloch,<sup>2</sup> Dr. Tariq Zaffar Shaikh,<sup>3</sup> Dr. Muhammad Sohail Baig,<sup>4</sup> Hamid Nawaz Ali Memon,<sup>3</sup>Dr. Samar Raza and <sup>3</sup>Dr. Ali Raza Shaikh<sup>1</sup>Consultant Surgeon & Medical Superintendent Peoples Medical College Hospital<sup>2</sup>Liaquat University of Medical and Health Sciences (LUMHS) Jamshoro<sup>3</sup>Liaquat University Hospital Hyderabad / Jamshoro<sup>4</sup>Zulekha Hospital Dubai United Arab Emirates**Abstract:****OBJECTIVE:** To determine the clinical study of patients with ruptured liver abscess**PATIENTS AND METHODS:** The six months cross sectional study was conducted on patients with liver abscess either gender presented at tertiary care hospital. The inclusion criteria was considered as clinical, ultrasonographic and serologic diagnosis (ELISA) of liver abscess, hospitalized and outpatient patients of both genders and the patients who came for follow up as advised while the exclusion criteria abdominal or biliary surgery and neoplastic antecedents while the frequency / percentages (%) and means  $\pm$ SD computed for study variables.**RESULTS:** During six month study period total fifty patients had ruptured liver abscess were explored and study. the frequency for male and female population was 36 (72%) and 14 (28%) with mean  $\pm$  SD for age of male and female individuals was  $48.98 \pm 8.42$  and  $49.72 \pm 8.54$  respectively. gender; male 36 (72%) and female 14 (28%), type of liver abscess; amebic liver abscess 35 (70%), pyogenic liver abscess 15 (30%), residence urban 18 (36%), rural 32 (64%); treatment open drainage 33 (66%), catheter drainage 17 (34%), complications; sepsis 03 (15.0%), peritonitis 05 (25.0%), pleural effusion 04 (20.0%), empyema 04 (20.0%), pneumonia 03 (15.0%) and pericardial effusion 01 (5.0%).**CONCLUSION:** Ruptured liver abscess requires prompt laparotomy and clearance of the septic focus along with a sound knowledge of the intraperitoneal spaces.**KEYWORDS:** Abscess, Liver, Amebic and Pyogenic.**Corresponding author:****\* Dr. Tufail Ahmed Baloch,**Email: [zulfikar229@hotmail.com](mailto:zulfikar229@hotmail.com)

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**INTRODUCTION:**

A liver abscess occurs when bacteria or protozoa destroy hepatic tissue, producing a cavity, which fills with infectious organisms, liquefied liver cells, and leukocytes [1]. Necrotic tissue then walls off the cavity from the rest of the liver. The differential diagnosis of liver abscess includes amoebic liver abscess, pyogenic liver abscess, fungal liver abscess, necrotic adenoma, and echinococcal cyst [2]. In addition to sepsis, morbidity can include pleural effusions, empyema, and pneumonia [3]. Abscesses may also rupture intraperitoneally, which is frequently fatal. However, the abscess does not rupture, but develops an uncontrolled leak resulting in a perihepatic abscess. Pyogenic abscesses also can cause hemobilia and hepatic vein thrombosis [4]. The high mortality rates came from delay or failure to diagnose the abscess, failure to detect smaller intrahepatic abscesses, ineffective surgical drainage, lack of source control, associated malignancy, immune insufficiency, or other major comorbidities [5]. Failure to establish a diagnosis and achieve adequate drainage was major factors that contributed to high mortality rates. No general consensus has been achieved regarding risk factors due to the variability of the patient population being studied and the presence of malignancy in the population [6]. Complications from liver abscesses occur secondary to rupture of the abscess into the peritoneum, pleural cavity, or pericardium. Ruptured liver abscesses associated with increase in mortality rates [7]. The role of therapeutic aspiration and/or drainage of the abscess cavity and peritoneal space in the management of ruptured liver abscess have been

controversial while the resuscitation, antibiotics and antiemetic agents have improved the surgical results [8]. Thus, this study planned to explore the clinical profile of patients with ruptured liver abscess at tertiary care hospital.

**PATIENTS AND METHODS:**

The six months cross sectional study was conducted on patients with liver abscess either gender presented at tertiary care hospital. The inclusion criteria was considered as clinical, ultrasonographic and serologic diagnosis (ELISA) of liver abscess, hospitalized and outpatient patients of both genders and the patients who came for follow up as advised while the exclusion criteria abdominal or biliary surgery and neoplastic antecedents. All the patients had clinical history, thorough clinical examination and relevant investigations as serology, ultrasound, CT and MRI (if required) were advised. The patients were managed accordingly and carefully monitored for complications while the data was collected on pre-designed proforma and analyzed in SPSS to manipulate the frequencies, percentages and mean  $\pm$ SD.

**RESULTS:**

During six month study period total fifty patients had ruptured liver abscess were explored and study. The frequency for male and female population was 36 (72%) and 14 (28%) with mean  $\pm$  SD for age of male and female individuals was  $48.98 \pm 8.42$  and  $49.72 \pm 8.54$  respectively. The demographical and clinical profile of study population is presented in Table 1.

**TABLE 1: THE DEMOGRAPHICAL AND CLINICAL PROFILE OF STUDY POPULATION**

Parameter	Frequency (N=50)	Percentage (%)
<b>AGE (yrs)</b>		
20-29	11	22
30-39	10	20
40-49	11	22
50-59	09	18
60+	09	18
<b>GENDER</b>		
Male	36	72
Female	14	28
<b>Type of liver abscess</b>		
Amebic liver abscess	35	70
Pyogenic liver abscess	15	30
<b>RESIDENCE</b>		
Urban	18	36
Rural	32	64
<b>Treatment</b>		
Open drainage	33	66
Catheter drainage	17	34
<b>Complications</b>	<b>N = 20</b>	
Sepsis	03	15.0
Peritonitis	05	25.0
Pleural effusion	04	20.0
Empyema	04	20.0
Pneumonia	03	15.0
Pericardial effusion	01	5.0

**DISCUSSION:**

The optimum treatment of ruptured liver abscess is still under debate and a number of surgeons advocate operative treatment as the best modality of treatment with a very low mortality. Lamont NM and Paul M reported no mortality in their five case series and have fifty per cent survival in 16 cases [9, 10]. Singh et al [11] reported a decrease in mortality from 80% in the conservative group to 14% in those treated surgically for ruptured ALA. Others favor conservative management citing low morbidity and mortality rates. Sarda AK et al [12] have reported mortality in patients treated surgically for ruptured ALA compared to no deaths in patients treated conservatively. Use of metronidazole has brought a remarkable improvement in the outcome and a similar improvement is reported by these of

Chloroquine. The mortality in our series is also significantly high (8.0%) in patients who were treated surgically. The average hospital stay is  $14.72 \pm 7.83$  days and is consistent with the results of other studies [11, 12]. The intraperitoneal rupture of amoebic liver abscess has a very high mortality, especially if the diagnosis is delayed. However, since the last decade, the availability of potent antibiotics and improvements in imaging technique, including wide spread availability of ultrasound together with sonographically guided percutaneous drainage has resulted in increased mortality. In our series, morbidity and mortality rate was controlled due to an early diagnosis being made and a timely surgical management was initiated.

**CONCLUSION:**

Ruptured liver abscess requires prompt laparotomy and clearance of the septic focus along with a sound knowledge of the intraperitoneal spaces. It has the additional benefit of treating the concurrent pathology. Placement of drains plays a crucial role to improve the prognosis. Drain placement without laparotomy is warranted if the general condition of the patient is poor and helps decrease the load of the septic focus.

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