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AMOEBIC LIVER ABSCESS CAUSING RIGHT UPPER ABDOMINAL MASS IN THE EMERGENCY DEPARTMENT OF MKCG MEDICAL COLLEGE AND HOSPITAL, SOUTHERN ODISHA, INDIA

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ABSTRACT:

Introduction: Amoebic liver abscess an inflammatory space- occupying lesion of the liver as a result ofEntamoebahistolytica.There is paucity of data on clinical presentation of amoebic liver abscess in emergency department.**Objectives:**To study different types of clinical presentation and complications of Amoebic liver abscess to achieve early diagnosis and prevent complications.**Materials and methods:**A retrospective study of ultrasonographically and serologically confirmed cases of amoebic liver abscess was carried out. History and general physical examination with attention to the liver size was recorded. Complete blood counts, liver function tests, prothrombin time index and a partial thromboplastin time were noted. Data on blood cultures and pus culture was noted and statistically analysed using IBM® SPSS® 23.0, for Windows®, to bring out the results of the study.**Results:** The mean age of patients was 38.3 years .Fever, and pain abdomen was seen in 92%, and 86% respectively. Duration of symptoms less than 2 weeks was seen in 48% cases. Hepatomegaly was seen in 14% cases, a right sided pleural effusion in 13% cases and ascites in 5%. On ultrasound, a right lobe abscess was seen in 68%, a left lobe abscess in 10% and multiple abscesses in both the lobes in 18% cases. 64 cases required per-cutaneous pigtail catheter drainage and the mortality rate was 6.4%.**Conclusion:** In southern odisha,Amoebic liver abscess is a public health problem. As a preventable illness, this imposes a major burden on the healthcare system and considerable opportunity for improvement still exists to address this healthcare disparity.

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Keywords: Amoebic liver abscess, EntamoebaHistolytica.

INTRODUCTION:

Amoebic liver abscess an inflammatory space- occupying lesion of the liver as a result of Entamoeba histolytica.[1]The organism enters the liver via portal vein during invasive stage causing marked tissue destruction resulting in liver abscess.[2, 3,,4, 5,6] Amoebic liver abscess is endemic in India due to poor living condition and low socioeconomic status. [7]

Amoebic liver abscess most commonly occurs in 20 to 45 years of age and is seen more in males. Patients usually present with abdominal pain, fever, and anorexia. Jaundice may be seen in one third of patients. Multiple abscesses, or a large abscess or an abscess located at porta hepatis can lead to severe icterus. [8]

Amoebic liver abscess is usually solitary and most commonly affects the right lobe of liver. If untreated, complicated amoebic liver abscess results in high morbidity and mortality. [9]There is paucity of data on clinical presentation of amoebic liver abscess in emergency department.This study was undertaken to explain the clinical presentation of amoebic liver abscess cases admitted in the emergency department of MKCG Medical College and Hospital.

Objectives: To study different types of clinical presentation and complications of Amoebic liver abscess in order to achieve early diagnosis and prevent complications.

MATERIALS AND METHODS:

This study was conducted in Department of General Surgery, MKCG Medical College and Hospital, Berhampur over a period of 24 months from July 2019- June 2021. A retrospective study of ultra-sonographically and serologically confirmed cases of amoebic liver abscess was carried out. History and general physical examination with attention to the liver size was recorded. Complete blood counts, liver function tests, prothrombin time index and a partial thromboplastin time were noted. Data on blood cultures and pus culture was noted and statistically analysed using IBM® SPSS® 23.0, for Windows®, to bring out the results of the study.

Inclusion criteria:

All cases of Amoebic liver abscess were included in the study.

Exclusion criteria:

1. Presence of organisms other than Entamoeba Histolytica on pus culture.
2. IgM ELISA Serology negative for Entamoeba histolytica

Ethical clearance:

The present study was approved by the institutional Ethical Committee of M.K.C.G Medical College and Hospital, Berhampur, on human subject research

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RESULTS:

Table I: Socio-demographic data

Total no. of patients in study	78	100%
Age	14-70 years	Mean age 38.3 years
Males	54	
Females	24	
Duration of fever at presentation	5-100 days	Mean duration 18.4 days

4(5.1%) patients died (3 males and 1 female) out of 78.

The liver could not be palpated below the right costal margin in 10% (8 cases). A right sided pleural effusion was present in 13% (10 cases), anaemia in 56% (44 cases) and leucocytosis in 67% (52 cases). The serum hepatic transaminases levels were raised to greater than 3 times the normal in 32% (25 cases).

A right lobe liver abscess was seen in 55%, left lobe abscess in 15% and multiple abscesses in both the lobes were seen in 30% cases on ultrasound examination. 9 patients had rupture of the abscess; right pleural rupture in 5, peritoneal rupture in 3 and both right pleural and peritoneal rupture in 1 patient respectively. 62 cases underwent per-cutaneous pigtail catheter drainage and the remaining cases were managed conservatively. The mean in-hospital stay of patients was 11.6 ± 0.6 days (range = 2-35 days) and the mean duration of time that the pigtail catheter drainage was carried out was for 10.2 ± 1.5 days (range = 4-28 days). Chest tube insertion into the right pleural cavity for draining the ruptured abscess was required in 7.3% cases.

Table II: Clinical features of 78 cases of amoebic liver abscess

Features	**n (%)**
Fever	72 (92)
Pain Abdomen	67 (86)
Jaundice	9 (11)
Hepatomegaly	11 (14)
Diarrhea	6 (8)
Abdominal Distension	2 (3)
Cough	2 (3)
Tachycardia	12 (15)
Hypotension	2 (3)
Deranged Prothrombin time index (<80%)	28 (36)
Hypoalbuminemia (< 3 gm/dL)	36 (46)

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Table III: Number of Pigtail Catheters versus Chest Tube Inserted

Year	No. of pigtail catheter inserted	Chest tube inserted	
		Yes	No
0	24	0	24
1	38	6	32
Total	62	6	56

Table IV: Number of Pigtail Catheters versus Clinical Outcome

Year	No. of pigtail catheter inserted	Survived	Deaths
0	24	21	3
1	38	36	2
Total	62	57	5

DISCUSSION:

Amoebic liver abscess (ALA) is a rare but potentially life-threatening complication of Entamoeba histolytica infection.E histolytica causes up to 40 million infections annually.[10]The mean age of the patients included in the study was 38.3 years and was comparable to other studies [11]. Fever and pain abdomen were seen in 67-87% and 62-94%of patients with amoebic liver abscess respectively in different series [12]. Symptoms of fever and pain abdomen occurred in 92 and 86% respectively in our study. Sharma et al found hepatomegaly in 84%, pleural effusion in 10% and ascites in 4% cases [7]. In contrast, hepatomegaly was seen in 14% cases, pleural effusion in 13% and ascites in 5% cases respectively in our study.

Jaundice was seen in 11% cases in our study while in earlier series, from India jaundice occurred in 45%-50% of patients.[13, 14]Amarapurkar et al in their study showed that the duration of symptoms less than 2 weeks was seen in 83.9% of cases [15]. In our study, duration of symptoms less than 2 weeks was evident in 48% cases.On ultrasonography, 4%-42% cases have multiple abscesses, 20%-35% have an abscess in the left lobe, and the remaining 49%-80% have a solitary abscess in the right lobe [9, 13]. Our study reported multiple abscesses in 18% cases, a solitary left lobe abscess in 10% cases and a single right lobe abscess in 68% of cases.64 cases required per-cutaneous pigtail catheter drainage. The mortality rate was 5.8%.

The overall mortality rate seen in ALA from various series ranges from 2-15% [11]. In our study, the mortality rate was 6.4%.

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CONCLUSION:

In southern odisha Amoebic liver abscess is a public health problem. As a preventable illness, this imposes a major burden on the healthcare system and substantial opportunity for improvement still exists to address this healthcare disparity.

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