

Amoebic Liver Abscess: Analysis of Two Hundred Cases: Presentation and Management

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Two hundred cases of the amoebic liver abscess were seen during period of 6 years (July 1992 to January 1998) at the Surgical Department of Nishtar Hospital, Multan and Surgical Departments of B.V. Hospital, Bahawalpur. It was more commonly seen in 3rd and 4th decade of the life with a male predominance and 80% of the patients belonged to the lower socio economic strata. Right lobe was the site of the amoebic abscess in 70% cases, 20% had left lobe abscess and in 10% multiple abscesses were present. The presenting features were anaemia, fever, weight loss, pain right hypochondrium, tenderness was present in 80% cases and enlargement of the liver in 75% cases. Abscess size varied from 4 to 15cm. All the large abscesses were aspirated in multiple sittings and laparotomy/open drainage was done only if above method failed or patient developed rupture of liver abscess. It is concluded that small abscess can be treated by medicamentous therapy moderate to large size abscesses by needle aspiration along with metronidazole and ruptured abscess by open drainage.

Key words: Amoebic liver abscess, presentation, management

In tropic countries amoebic liver abscess is a common entity^{1,2}. The epidemiology is affected by the socioeconomic conditions, lack of education, poor health care and contaminated food and water supply³.

Regarding the management of amoebic abscess some favour the conservative medicamentous therapy⁴ while others are in favour of interventional needle aspiration^{5,6,7}. The role of open tube drainage has been mentioned⁸.

Proper diagnosis and evaluations of the abscess is the foundation for its management. Small abscesses can be managed by medicamentous therapy. The abscess which are moderate to large size are aspirated with sonoguided needle, and only ruptured abscesses were managed by open tube drainage.

This study was conducted to find various modes of presentations to explore the morbidity and mortality of the disease, and to evaluate the different modalities of management. Accurate measurement of the abscess size and to advise the management accordingly, also was the aim of this study.

Material and Methods

Over a period of 10 years between July 1992 to January 1998 a total number of 200 cases of amoebic liver abscess were studied at Nishtar Hospital Multan and B.V. Hospital, Bahawalpur. The protocol for management of the patients included in the present study consisted of detailed history, physical examination, sonography, x-ray chest urine and blood examination liver function test. The size of the abscess was determined and following groups formed.

Group I :If the abscess was <4cm conservative management with metronidazole was given. Patient treated as an out patient.

Group II: If the size of the abscess was more than 4cm then sonographically guided needle aspiration was undertaken along with medicamentous therapy. Patient treated as an out patient.

Group III: Large abscess>8cm were drained by multiple sonographic needle aspirations at the intervals of 7-60days dependant upon the response of the patients alongwith medicamentous therapy. All patients admitted for 3-7 days.

Group IV: Ruptured liver abscess, abscesses unresponsive to aspiration and medicamentous therapy were drained openly and tube drainage were provided.

Results

A total number of 200 cases of amoebic liver abscess were seen during the period of the study. The age ranged between 18-63 years. The highest incidence of the disease was noticed in 3rd decade (60 cases), followed by 42 cases in 4th decade of life. 165 patients were male and 35 were female. The table 1 denotes the age and sex distribution of the patients.

Table 1. Age and sex distribution

Age in years	Male	Female	Total
11-20	20	04	24
21-30	49	11	60
31-40	35	07	42
41-50	32	06	38
51-60	25	05	30
61-70	04	02	06

Fever, pain right hypochondrium were the commonest presenting features. Anaemia weight loss and jaundice were also noticed and posture made pain worse in 181 cases. Swelling in the epigastrium and hypochondrium was observed in 162 cases. Chest examination showed change in 24 patients, basal pneumonitis in 17 and pleural effusion in 7 cases.

Haemagglutination test was positive in 187 cases, liver functions showed abnormality in 34 cases. Serum alkaline phosphatase was raised in 21, serum bilirubin was raised in 8 and SGOT and SGPT in 12 cases, x-ray chest showed raised dome of diaphragm in 31 cases, obliteration of costo phrenic angle in 22 cases basal lung changes were observed in 26 cases.

Sonography was the most useful modality in the present series. It showed up the abscesses in 100% cases. Sonographic characteristics of amoebic abscess were oval or rounded shaped lesions and hypochoic contents with posterior enhancement. The large size abscess were more near the capsule of the liver.

Amoebic abscesses were present in 70% cases in the right lobe, in 20% cases in left lobe and in 10% cases were bilateral and multiple

Table 2. Clinical features

Features	n=	%age
Fever	155	75.5
Anaemia	162	81
Weight loss	138	69
Pain right hypochondrium	179	89.5
Tenderness right upper abdomen	160	80
Swelling right hypochondrium and epigastrium	162	81
Enlarged liver	150	75
Basal pneumonitis	24	12

Metronidazole was given in the doses of 800mg TDS for 12-18 days. Intravenous metronidazole was administered when it was considered necessary. A course of intestinal amoebicide Diloxanide furoate was 500mg TDS for 10 days to cover the amoebae present in the gut.

In group I (Table 3) no operation was done and recovery (within 14 days) was also prompt. All patients treated on out door basis.

Group	n=	%age	No. of Apiration	Recovery period	Hospita l stay
Group I Abscess less than 4cm	98	49	Nil	upto 14 days	Nil
Group II Abscess upto 8cm	60	30	Single	Upto 30 days	Nil
Group III Abscess larger than 8cm	37	18.5	Upto 5	Upto 120 days*	3-7 days
Group IV Ruptured abscess or not responded to aspiration/medicine	05	2.5	Open drainage	Upto 90 days	Upto 30 days

In group II, 3 aspiration was found sufficient with prompt recovery (with in 30 days). All patients were treated on out door basis.

In group III, upto 5 aspiration were done at the intervals of 1 week to 8 weeks. The recovery period was delayed upto 120 days. All patients were admitted for 3-7 days and then treated as outdoor patients.

In group IV, open drainage was done, one patient was died and one patient developed hepatobronchial fistula and referred to thoracic surgeon. The recovery was also delayed upto 90 days with prolonged hospitalization upto 30 days.

Discussion

Amoebic hepatitis and amoebic liver abscess is a commonly encountered problem in the tropical countries. Previous history of amoebic dysentery is present in about 15-20% cases. The intestinal amoebiasis has been reported to be much prevalent in our country by Hussain KS (1987). Walsh JA (1981) described the magnitude of the intestinal amoebiasis in WHO survey report. About 480 million carried entamoeba histolytica in their intestinal tract on global scale and one tenth of them had intestinal or liver involvement.

Two hundred cases of amoebic liver abscess were seen during the period of study. The age distribution of the disease skewed towards 3rd decade and this finding is in accordance with the other¹ The male predominance has been reported by various investigators and this study is consistent with this finding². Fever, pain right hypochondrium were the commonest presenting features. Anaemia weight loss and jaundice were also noticed. Pain was dull or stabbing sharp in character. Posture made the pain worse in majority of the cases. The clinical presentations are more acute in majority of the patients which is substantiated by the tropical studies¹. Swelling in epigastrium and hypochondrium enlarged tender liver, basal pneumonitis and pleural effusion are important signs, our study is also consistent with these findings.

Haemagglutination test was positive in 187 cases. Liver function showed abnormalities in 34 cases, serum alkaline phosphatase was raised in 21, serum bilirubin was raised in 8 and SGOT and SGPT in 12 cases. X-rays chest showed raised dome of diaphragm in 31 cases, obliteration of costo phrenic angle in 22 cases, basal lung changes were observed in 26 cases. In left lobe abscess, displacement of gastric cardia, lesser curvature and duodenal cap with crescentic deformity of stomach and down displacement of splenic flexure is frequently found-Mill 1936¹⁰.

Sonography has been found the most useful

modality, it has very high sensitivity and specificity (100%). Sonographic characteristics of amoebic abscess were oval or rounded shape, hypochoic contents with posterior enhancement⁷. The large size abscess were more near the capsule of liver.

Radionuclide scanning reveals cold areas in the liver scan and is of a great diagnostic help¹¹ and combined application of ultrasonography and radio nuclide scanning improves the diagnostic accuracy. Widjaya (1991)⁷ is of the opinion that percutaneous needle drainage in combination with medicamentous therapy is a successful approach in the treatment of amoebic liver abscesses. Freemanetal (1990)⁶ also recommend aspiration of the abscess cavity for the rapid relief and cure, while some workers⁴ in 1989 have found the optimal efficacy of the potent amoebicidal drugs such a metronidazole. The rate of resolution of the abscess has been described to ranging vary widely between 10-300 days. The clinical recovery as well as the resolution of the abscess cavity is late in the presence of a large size. But still large abscess amenable to repeated sonic aspiration with no mortality. It may repeated medicamentous administration to make the ailment quiescent. The abscesses if do not resolve readily may undergo complications in the form of secondary infection, rupture or acute catastrophic pericardial tamponads. Recently an autopsy study has shown recommended that if an abscess is not responding to the treatment properly, or does not regress after multiple aspirations or eludes the entry of the needle or become secondarily infected or is located in the left lobe of the

liver should be treated by laparotomy and tube drainage. A defence for lesser surgery cannot be justified because the refusal of operative drainage in such cases will result in increase mortality.

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