

# Management of Amoebic Liver Abscess

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A prospective study of 56 patients with amoebic liver abscess was carried out in the surgical units of Sir Ganga Ram Hospital and Mayo Hospital, Lahore from January 1998 to June 2001. It included 42 males and 14 female patients. It was more commonly seen in the 3<sup>rd</sup> and 4<sup>th</sup> decade of life. Right lobe was the site of amoebic abscess in 62% of cases, left lobe in 24% and there was a bilateral involvement in 14% of cases. Twenty eight percent of the cases had multiple abscesses. All these cases were managed by Metronidazole administration, by needle aspiration under ultrasonic/CT scan guidance or by open surgical drainage in those cases where the above mentioned method failed. All ruptured abscesses were managed by open drainage.

**Key words:** Amoebic liver abscess, needle aspiration, open surgical drainage.

Hepatic amoebiasis results from intestinal amoebiasis though it is not clear what proportion of infected patients are so affected<sup>1</sup>. Amoebic abscesses occur very frequently in warmer climates. They tend to occur in younger patients than in those with pyogenic liver abscesses. Epidemiology is affected by poor health care and contaminated food and water supply.

Initial management is usually non surgical with administration of Metronidazole. It has lowered the mortality of amoebic abscess and this is now negligible although recurrence after this therapy can occur<sup>2</sup>. Aspiration of amoebic abscess is reserved for patients when there is no response within two days. Deterioration in general condition of the patient, repeated episodes of septicaemia or a failure of abscess to decrease in size should be treated by surgical drainage<sup>3</sup>.

The purpose of the study was the assessment of various modes of presentation and different modalities of management of amoebic liver abscesses. These results were compared with similar studies conducted in other countries.

## Patients and methods

During the three and a half year period i.e., from January 1998 to June 2001, 56 patients with amoebic liver abscesses were managed in the general surgical units of Sir Ganga Ram Hospital and Mayo Hospital, Lahore. After taking a detailed history all the patients were assessed clinically. These patients were then subjected to routine urine and blood examination, liver function tests, stool examination, x-ray chest and abdominal ultrasonography. Fourteen of our patients had their abdominal C.T. scan done with contrast enhancement. Mode of admission of the patients were through emergency, outpatients department and referral from medical ward.

Management of all those patients with abscesses less than 3cm in size was done by administering Metronidazole. Those with larger abscesses were managed by needle aspiration under ultrasonic guidance. A few patients had their aspiration done under C.T. scan guidance when this facility was available in the hospital. All these

patients were administered Metronidazole also. Some of our patients had to be subjected to two or three episodes of needle aspiration. In those patients where there was a failure of the abscess to decrease in size, where there was a deterioration in the general condition of the patient or where the patient presented with a ruptured liver abscess. open surgical drainage with the placement of a tube drain was provided. Anterior abscesses were approached by a right subcostal incision and posterior abscess through the bed of the right posterior 12<sup>th</sup> rib. Drains were left until the drainage ceased. Duration of stay in the hospital for these patients varied from 5 to 11 days.

## Results

A total number of 56 patients of amoebic liver abscess were seen during the period of study. The age ranged between 16-72 years. There was a male predominance and the highest incidence of disease was noticed in the 3<sup>rd</sup> decade. Table 1 shows the age and sex distribution of the patients.

Table 1. Age and sex distribution

Age in years	Male	Female	Total
11-20	4	1	5
21-30	14	6	20
31-40	10	4	14
41-50	5	1	6
51-60	5	1	6
61-70	3	1	4
71-80	1	-	1
Total	42(75%)	14(25%)	56

Pain aggravated by movement and cough were the most common feature alongwith a low grade fever. Sweating, anorexia, vomiting and weight loss were also noted. About 20% of the patients with amoebic abscess had diarrhoea or a previous history. Hepatomegaly was observed in 47 patients. Chest radiography outlined basal lung changes of consolidation and pleural effusion in 7 patients. Disturbances of liver function tests were not diagnostic.

Table 2. Clinical features noted.

Features	n=	%age
Pain	54	96
Fever	48	86
Sweating	24	43
Weight loss	32	57
Anorexia	41	73
Vomiting	43	76
Hepatomegaly	47	84
Tenderness right upper abdomen	51	91

Table 3 shows the anatomical distribution of the amoebic liver abscess.

Anatomical distribution	n=	%age
Right lobe	35	62
Left lobe	14	24
Bilateral involvement	7	14
Total	56	100

Table 4 shows the distribution of patient as regards the modality of treatment required for the management.

Modality of treatment	n=	%age
Medicinal treatment alone	8	14
Needle aspiration + Metronidazole	32	57
Open surgical drainage		
Anterior approach	11	20
Posterior approach	5	9

Nine of the sixteen patients who underwent open drainage presented with ruptured abscess. Table 5 shows the mode of admission of the patients with amoebic liver abscess.

Table 5. Mode of admission

Mode of admission	n=	%age
Emergency	31	55
Outpatient Department	20	36
Referral from other wards	5	9

## Discussion

Amoebic hepatitis and amoebic liver abscess is a commonly encountered problem in the tropical countries. The results of treatment of the amoebic liver abscess have improved remarkably during the last few decades. Highest incidence of the disease seen in the 3<sup>rd</sup> decade and the presence of male predominance in our study is consistent with other studies carried out in Pakistan and abroad<sup>1,4</sup>. Clinical presentations are acute in majority of our patients which is substantiated by tropical studies. In other studies

swelling in epigastrium and right hypochondrium, basal pneumonitis and pleural effusion are important signs and our study is also consistent with these findings.

Ultrasound and C.T. scan has been found to be the most useful modality as far as the diagnosis of hepatic amoebic abscess is concerned<sup>5</sup>. Widjaya<sup>6</sup> and Freeman et al<sup>7</sup> in their studies have also recommended that percutaneous needle drainage in combination with Metronidazole is a successful approach in the treatment of amoebic liver abscess. In our study about 60% of patients were treated by this modality.

In our study if an abscess was not responding to treatment, would not regress after multiple aspiration<sup>8</sup>, became secondarily infected, then it was treated by laparotomy and tube drainage as refusal of operative drainage in such cases would result in increase morbidity and mortality.

On the basis of our study we recommend a more conservative approach in the management of amoebic liver abscess instead of open surgical drainage. We also recommend the availability of facilities of C.T. scan at the teaching hospitals and ultrasound facilities at Tehsil Headquarter Hospitals for amore efficient and prompt management of amoebic liver abscess. We also recommend more prospective studies for hepatic amoebiasis to have clearer guidelines for better management.

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