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Research Article

A study of management approach in amoebic liver abscess

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Abstract

Background: Amoebic liver abscess has a very high mortality if it is undiagnosed and untreated in developing countries. **Objective:** The objective of this study was to see the clinical presentation of patients with amoebic liver abscess and to see the effect of medical management on the outcome of patient. **Methods:** 30 patients (29 males and 1 female) were studied and they were given amoebicidal drugs along with the antibiotics and surgical intervention if needed. **Results:** In this study of 30 patients, all patients were cured except one with ruptured amoebic liver abscess into pleural cavity who died on 10th day. Twenty one patients responded well to medical management alone where as in 2 patients surgical intervention was needed. Seven were managed by aspiration and antiamoebic drugs both. **Conclusion:** With early diagnosis and prompt start of management prognosis is excellent.

Keywords: Amoebic liver abscess, amoebicidal drugs, surgical management

Introduction

Amoebiasis is common in under developed and developing countries with low socio-economic status living in congested localities and poor sanitation. Poor socio-economic status, poor sanitation, overcrowding, unsafe drinking water, cultural habits are still the predisposing factors in a developing countries. The morbidity increases and at time mortality occurs if diagnosis is delayed. Drug therapy alone is the mainstay of management.

However there is wide practice of aspiration and drainage in all cases. Amoebic liver abscess, undiagnosed and untreated has a very high mortality rate. With early diagnosis and prompt institution of specific therapy, the prognosis is excellent and the mortality is low. This study was undertaken to evaluate the treatment protocol of amoebic liver abscess.

In 1887 the amoeba was identified as the etiological agent in a tropical liver abscess by Robert Koch. He demonstrated *E. histolytica* in the walls of capillaries near abscess which were similar to those found in the stool⁽¹⁾. The etiological relationship between amoebic dysentery and tropical hepatic abscess was confirmed by Kartulis in Egypt in 1887. In 1889 Councilman and Lafleur confirmed the occurrence of hepatic abscess as a complication of dysentery and coined the term 'Amoebic Abscess of Liver'⁽²⁾.

Aims and objectives

The present study was done in patients of amoebic liver abscess with following aims and objectives

1. to compare clinical details of patients
2. To evaluate the effect of medical management on the outcome of patient.

Materials and Methods

30 cases of amoebic liver abscess admitted in surgical and medical wards in J.J. Hospital, G.T. Hospital and St. George's Hospital, Mumbai were studied. The 20 number of cases were in the age group of 30-40 yrs. In this study only one was female. For the present study prior permission from the institutions ethical committee was taken. After taking patient's informed consent regarding participation in the current study, detail history was taken and data recorded systematically. For diagnosing a case of amoebic liver abscess following criteria suggested by WHO are followed⁽³⁾.

1. Enlarged tender liver
2. Radiological evidence of raised diaphragm
3. Ultra sonography
4. Aspiration of amoebic pus from the abscess
5. Hematological findings
6. Stool examination.

Patients having other ailments like cardiovascular disease, Diabetes mellitus, and hypertension were excluded from the study. In all patients X-ray chest,

ultrasonography, blood cell counts and hemoglobin estimation was done.

The antiamoebic drugs used were metronidazole, chloroquine and Di-iodohydroxyquinoline (used in 8 cases only)^(4,5). Metronidazole and chloroquine were used in all cases.

Antibiotics used were Ampicillin and Cefotaxime. Antibiotics were used in all patients.

Sr. No.	Therapy	No. of cases	Percentage
1	Drugs only	21	70
2	Drugs + Aspiration	7	23
3	Drugs + open drainage	1	3.5
4	Drugs + ICD +Aspiration	1	3.5

Results

Highest incidence was found in age group of 30-40 years and 90% of them were male. The duration of stay of the patients was maximum up to 28 days. In this study all the patients complained of pain in the right side of abdomen. Fever was present in all patients. Out of 30 patients, diarrhea was present in 13 patients and past history of dysentery was present in 5 cases. Tenderness at right hypochondriac was present in all the cases. Liver was palpable in only 10 cases of 30 patients. Predominant symptoms were abdominal pain and fever.

X-ray chest was done in all patients. In 8 patients there was obvious raised dome of diaphragm. Twenty two patients had hemoglobin below 10 gm % and in remaining 7 patients hemoglobin was between 11 and 14 gm %. Leucocytosis was present in 21 patients.

In this study of 30 cases, 21 patients were treated by amoebicidal drugs alone. Seven were managed by aspiration and antiamoebic drugs. One patient was explored, abscess was drained and antiamoebic drugs were given. One patient of amoebic liver

abscess with rupture into pleural cavity was managed by insertion of inter costal drainage, antiamoebic drugs and higher antibiotics. Liver abscess was aspirated.

In this study of 30 patients, all patients were cured except one with ruptured amoebic liver abscess into pleural cavity who died on 10th day. Twenty one patients were treated with medical management alone where as in 2 patients surgical intervention was needed.

Discussion

Amoebic liver abscess is common in low socio-economic group. Hepatomegaly may or may not be present but radiological, hematological investigations and ultrasonography confirmed the diagnosis.

After diagnosis in the absence of complications, amoebic liver abscesses were treated conservatively. Abscess should be aspirated if it is large or associated with complications and not responding to conservative line of treatment. The most common and effective drugs used are metronidazole, chloroquine and Di-iodohydroxyquinoline along with antibiotics. If large abscess does not respond to conservative line of treatment, it should be aspirated with all aseptic and antiseptic precautions. If abscess is situated near important structures like vessels or diaphragm it can be aspirated under sonologic guidance. If abscess has ruptured or very huge abscess not responding to repeated aspiration, should be drained.

Ochsner and DeBakey advocated the three principles of treatment which includes 1. A course of amoebicidal drug therapy before any other procedure is used, unless rupture of the abscess appears imminent. 2. If evacuation of pus is necessary aspiration along with amoebicidal drugs is the procedure of choice. 3. Open drainage of the abscess should be reserved for the relatively few cases of secondarily infected abscess⁽⁶⁾.

Conclusions

In this study all the patients complained of pain on right side of abdomen along with fever. Cardinal

symptoms with tender hepatomegaly point to the amoebic liver abscess. Correct diagnosis and early management with amoebicidal drugs⁽⁸⁾ and in some cases with aspiration and rarely with open drainage affects the mortality⁽⁹⁾.

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