Clinical analysis of Amebic Liver Abscess in Sulaimany governorate

***Aras A. Abdullah,DM,FICMS**

Abstract

An overview of 33 Kurdish patients in Sulaimany governorate with cliniacl diagnosis of amebic liver abscess

Background :

Amebic liver abscess (ALA) is a significant leading cause of morbidity in the developing countries including our region in the north of IRAQ .It can cause a prolonged fever,anorexia and substantial body weight loss.Medical therapy is still the preferred way of treatment with excellent results.

Objectives :

To investigate the clinical features,sonographic appearances of ALA and to evaluate the safety of conservative management,33 kurdish patients were studied as an out and inpatient bases with literature review.

Patients and Methods:

During the period of three months (from April 2002 to June 2002) 33 patients discovered to have ALA were prospectively assessed clinically, laboratory and sonographically. Amebicidal drugs used sucssessfully with few surgical interventions.

Results:

The most common presentations were abdominal pain(81.8%),fever (72.2%),and anorexia (54.5%) Right liver lobe was the commonest site and sonographic guided FNAs were negative for amebae. All had had leucocytosis and high ESR.Imidazol therapy was sucssessful in all except for four patients (12.9%) . After 6 months followup , 14.8% of cases showed sonographic residual abscess cavity.

Conclusions:

1. Clinical and sonographic apearances of our patients were similar to other works.
2. Young females were more affected in contrast to all other reports.
3. Leucocytosis and elevated sedimentation rate were constant findings.
4. Medical therapy is still the best initial options giving excellent results.

Key word:

ALA Amebic liver abscess.

Introduction:

Entameba histolytica is one of the most common causes of liver abscess.

Amebae enter the portal vein and are swept to the liver establishing single or multiple abscesses,although in most patients a single abscess is found(1).Amebic liver abscess(ALA) occurs in up to 10% of asymptomatic harborers of Entameba histolytica(2).It is ten times as common in men as in women and is a rare disease in children(3). In Kurdistan part of Iraq ,due to lack of agglutination tests for amebae for the diagnosis of ALA we depend on: clinical presentations (fever , anorexia and right hypochondrial pain) , clinical signs (tender right hypochondrium with or without palpable liver) ,and laboratory findings (leuco-cytosis and elevated sedimentation rate) along with a sonographic hypoechoic space occupying lesion Finally , the diagnosis will be supported by prompt improvements in clinical,blood test results and sonographic changes in the size of the abscess in the subsequent follow up period .

***Dr. Aras A. Abdullah, Senior lecturer in medicine,department of medicine ,college of medicine, Sulaimany University**

Except for one work by Baban FA (4)on ALA , no informations are available in our region and for the first time we report an epidemic of ALA within a short period of time not only in kurdistan but at the level of the whole Iraq.

Patients and methods:

We report a prospective analysis of 33 Kurdish patients with ALA, studied from April 2002 to June 2002. Clinical informations were collected including symptoms and signs.Hepatic sonography assessed the appearances , locations and the number of abscesses in each case.The abscesses appeared as well defined , more or less round,hypoechoic space occupying lesions of varios sizes with normal surrounding hepatic tissues.

All patients were sent for blood count and biochemical test.

CXR and ultrasound guided fine needle aspiration were done in all cases .

Slide smears were sent for cytological, AFB,Gramm stain and direct microscopy for E. histolytica . 6 month follow-up were done clinically , by blood examinations (WBC and ESR) and sonographic changes were also possible in 27 patients . Follow-up sonography showed dramatic reduction in the size of the abscesses and almost complete resolution by 6 months ; except in 4 cases who remained with residual abscess cavities.

Table –1- Clinical presentations in 33 patients with ALA

	Clinical Presentations	Number of Patients
1	Abdominal pain	81.8% (27)
2	Fever	72.2% (24)
3	Abdominal tenderness	66.6% (22)
4	Hepatomegaly	60.6% (20)
5	Anorexia	54.5% (18)
6	Malaise and weakness	36.3% (12)
7	Nausea	27.2% (9)
8	Body weight loss	18.1% (6)
9	Previous bloody diarrhea	15.1% (5)
10	Jaundice	12.1% (4)

Table –2- Patients' characteristics in 33 patients with ALA

Age (years)	37+- 19
Sex (Male:Female ratio)	13:20
Duration of clinical presentations(days)	13+-4

Results:

According to our study, the common clinical symptoms and signs were abdominal pain (81.8%) ,fever(72.2%),abdominal tenderness (66.6%) and tender liver (60.6%) .The history of bloody diarrhea was relevant in only 5 cases(15.1%)[Table–1].In this presentation, these33 cases :20 women(60.6%)and 13men (39.4%) had a mean age of 37(19) years,(range between 18-56) .The shortest and longest durations of presentations were 9 &17 days respectively (Table2) .

The abscesses detected were usually located at the right lobe of the liver (26cases, 78.5%).Only 2 cases (6%) were confined to the left lobe and 5 (15%) had both lobes affected . In all cases, the sonographic guided fine needle aspirations were negative for Entamoeba histolytica , malignant cells and bacteria .The smears revealed only pus cells with RBCs and scattered hepatocytes .In reviewing the laboratory results,all patients had a leukocytosis more than 11000 and a high ESR more than 60 mm/hour .The rest of the investigations were normal except for mild hyperbilirubinemia not exceeding4 mg%in only 4 cases. Lastly, all cases were given either oral Metronidazole(2.4g/day)or Tinidazole(2g/day) for7-10days.

Two cases from the start of medical therapy underwent surgical drainage and excluded from the study .Clinical improvement was the rule in 27 cases(87%) The other 4 cases remained ill and symptomatic despite seven day-course of Treatment, they were referred for surgery. Among the last 4 cases one case was found to have caseating granulomas and kept on anti TB therapy with good response . In those 27 cases , after 6 months follow up , both ESR and WBC returned to normal and only 4 cases remained with sonographic residual abscess cavities.

Discussions:

ALA is an inflammatory space occupying lesion of the liver caused by Entameba histolytica(5).The incidence of ALA is between 3% and 9% of all cases of amebiasis(6) .The infection starts with an ingestion of amoebic cysts which after excystation form trophozoiets in the small intestine,colonize the bowel lumen and invade the intestinal epithelium resulting in amebic colitis. Spreading to the liver through portal system establishes ALA(7).It occurs most commonly in the age groups of 20-45 years.It has been estimated to be 7-9 times more common in males.Most of them present with an acute illness and duration of symptoms less than two weeks (5) . ALA has a good prognosis when treated with Metronidazole and early diagnosis and treatment is therefore important (8) . According to this series, the clinical symptoms and signs of our patients were similar to those in the previous reports(9) .

Like in the previous studies, the abscesses were located predominantly in the right lobe of the liver (78.8%)(10).Regarding the number of the abscesses most of our patients had single abscess (76%) .None of the smears made from fine needle aspiration revealed E.histolytica . Presence of the pus cells and no identification of the bacteria in our work were in agreement with the other works(9,11) .In all patients ,a significant laboratory finding was leukocytosis along with high ESR. Other workers reported findings of 61% and 88% respectively(9).

In terms of treatment of ALA both Metronidazole 2.4 g/day and Tinidazole 2g/day for 7-10 days proved to be an effective therapy (12,13).Failure of only 4 cases (12.9%)during medical therapy suggests the safety of conservative medical management of ALA . About 10% of the successfully treated ALA do not resolve completely and can be detected by ultrasound as typical residual liver lesions(14).

In our series , after 6 months of follow up 14.8% showed residual cavity.

Conclusions:

ALA is an important gastrointestinal disease in our region .In spite of its endemicity , collecting 33 cases within three months points to an outbreak of the disease which we couldn't explain the source of infection.The clinical presentations of our ALA patients were similar to previous reports . In contrast to all other works, in our study young females were more affected than males; for which we couldn't get an explanation . Elevated ESR and WBCs were constant features .

Medical therapy has an excellent result and we should be aware of the typical sonographic residual liver lesions.

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