

Original Research Article

Clinical features and management of amoebic liver abscesses in a rural teaching hospital - A cross-sectional study, Sangareddy

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Abstract

Background: Liver abscess is a major health problem in tropical and subtropical regions.

Aim: The present study aimed to evaluate the clinical profile, management of amoebic liver abscess patients.

Materials and methods: A cross-sectional study was conducted in Department of Surgery MNR Medical College Hospital, Sangareddy over a period of 2 years from June 2014 to July 2016. A total of 100 patients with liver abscess were included in this study. Clinical examination, detail case history, ultrasonography reports, case management and outcome were recorded during study.

Results: Among 100 patients, 88 were males and 12 were females. Majority of cases were belongs to the age group of 30 -40 years (45%). Most common clinical features of amoebic liver abscess was fever (89%), abdominal pain (78%) and diarrhoea (37%). The major signs were hepatomegaly (87%), right lobe abscess (68%), left lobe abscess (36%) and pleural effusion (18%). Mortality rate was 3% out of 100 patients.

Conclusion: According to our study percutaneous needle aspiration with antiprotozoal drugs showed better results for the management of amoebic liver abscess.

Key words

Amoebic liver abscess, Amoebic dysentery, Percutaneous needle aspiration, Right lobe abscess, Left lobe abscess.

Introduction

Liver abscesses are infectious, space occupying lesions in the liver. Liver abscess can be caused due to parasitic, bacterial, viral and fungal infection [1]. Amoebic liver abscess is most common in tropical and subtropical regions, accounts 10% of the world's population [2-5]. *Entamoebahistolytica* causes amoebic liver abscess, diarrhoea and recto colitis [3, 4]. Pathological manifestations are inflammatory and ulcerative lesions in the cecum, sigmoid colon and rectum [6, 7]. Amoebic liver abscess is most commonly found in lower socio economic group [4]. This type of infection is more common in males than females and is rare in children [3, 5, 8]. Early manifestation of amoebic liver abscess is abdominal pain and fever is almost invariable, sometimes presents as fever of unknown origin [3, 5]. The diagnosis of amoebic liver abscess is depending on clinical examination, stool routine examination, serological testing and ultrasonography report [3, 5, 8]. In the early days surgical management was the most common mode of treatment of amoebic liver abscess [9]. Now a day percutaneous needle aspiration combined with anti-protozoal drug therapy shows better outcome [10]. Thus the present study focused on the clinical feature, management and outcome of amoebic liver abscess patients attending the rural teaching hospital during study period.

Materials and methods

This was a cross-sectional study conducted in Surgery Department, MNR Medical College and Hospital, Sangareddy. A total of 100 amoebic liver abscess patients include in this study. A proper consent form filled by the patients during study period. Detail case history, clinical examination, laboratory investigations reports,

serological diagnosis and ultrasonography findings were recorded. All the cases were managed by percutaneous needle aspiration combined with anti-protozoan drug (metronidazole) therapy. Inclusion criteria were abscess cavity size greater than 5cm; right lobe abscess and left lobe abscess and exclusion criteria were presence of microorganisms rather than *Entamoebahistolytica* in pus sample.

Results

Among 100 liver abscess patients, 88% were males and 22% were female (**Table – 1**). Most common age group was 30-40 years (45%) followed by 41-50 years (27%) (**Table – 2**). Major symptoms were fever (89%), abdominal pain (78%) and dysentery (37%) (**Table – 3**). A right lobe abscess was present in 68% cases followed by 36% cases for left lobe abscess. Patient's complaints with hepatomegaly and pleural effusion were 87% and 18% respectively (**Table – 4**). Out of 100 patients, 3 were died due to the amoebic liver abscess (**Figure – 1**).

Table - 1: Sex distribution of patients in percentage.

| Sex | No. of cases (%) |
|--------|------------------|
| Male | 88 |
| Female | 12 |

Table - 2: Age group distribution of patients in percentage.

| Age group (Years) | No. of cases (%) |
|-------------------|------------------|
| 20-30 | 9 |
| 31-40 | 45 |
| 41-50 | 27 |
| 51-60 | 13 |
| 61-70 | 6 |

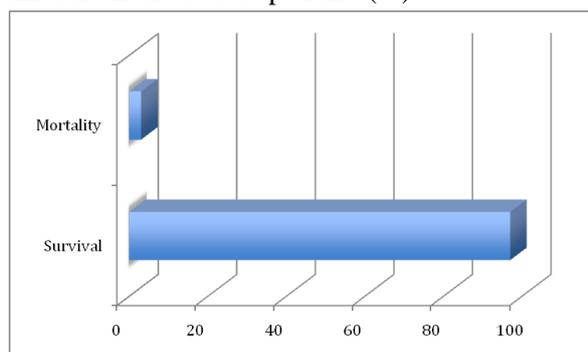
Table - 3: Major symptoms in patients in percentage.

| Symptoms | No. of cases (%) |
|----------------|------------------|
| Fever | 89 |
| Abdominal pain | 78 |
| Dysentery | 37 |

Table - 4: Clinical features of patients in percentage.

| Signs | No. of cases (%) |
|--------------------|------------------|
| Hepatomegaly | 87 |
| Right lobe abscess | 68 |
| Left lobe abscess | 36 |
| Pleural effusion | 18 |

Figure - 1: Mortality and Survival rate of amoebic liver abscess patients (%).



Discussion

According to WHO estimation, 50 million cases of *Entamoebahistolytica* and 1 lakh death annually. This data making this disease the second leading cause of death from protozoan diseases [2, 5, 11]. In this present study majority of patients were male (88%). Similar findings also reported by Siddiqui MNA, et al. and B. Paik, et al. [4, 12]. However, Heneghan, et al. reported lower number of male than female [13]. The majority of patients were belongs to the age group of 30-40 years and was comparable with other studies [3, 4, 7, 14, 15]. In our study major symptoms were fever (89%), abdominal pain (78%) and dysentery (37%). Alam F, et al. [16] study showed amoebic liver abscess patients presented with fever, abdominal pain, dysentery was 98.89%, 97.78% and 7.78% respectively. In

our study hepatomegaly was in 87%, right lobe abscess in 68%, left lobe abscess in 36% and pleural effusion in 18% cases. B. Paik, et al. reported hepatomegaly was in 88%, right lobe abscess in 65%, left lobe abscess in 14% and pleural effusion in 14% cases [12]. Our findings were also comparable with Sharma MP, et al. [17]. In our study mortality rate in amoebic liver abscess was 3%. Various studies reported mortality rate ranges from 2-15% [3, 6, 7, 12, 18].

Conclusion

Percutaneous needle aspiration of pus combined with metronidazole treatment gives a better outcome in management of amoebic liver abscess. It can avoid the need for surgical procedures, which should be reserved for complicated liver abscess only.

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