

PREVALENCE OF AMOEBIC LIVER ABSCESS IN RELATION TO SEASON, AGE AND SEX

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ABSTRACT: Amoebic liver abscess is one of the important diseases in tropical third world countries, especially in certain areas where the people drink Toddy an alcoholic beverage extracted from palm trees, it's available in certain seasons, in these seasons especially late summer to early rainy months the prevalence of Amoebic liver abscess is high, young to middle aged men are more affected than women, since there are many factors why the women are less likely get this disease.

KEYWORDS: Entamoebahysteolytica, Toddy, Palm wine, sur.

INTRODUCTION: High prevalence of amoebic liver abscess in certain seasons in tropical poor developing nations. Entamoeba- a tissue lysing intestinal protozoan well known to cause amoebic colitis and other extra intestinal manifestations like amoebic hepatitis liver abscess etc.¹

Life cycle of entamoebahysteolytica

It has two stages:

1. Multi nucleated cyst.
2. Motile trophozoite form.

Humans are natural host to acquire the disease by ingestion of food, water contaminated with EH cysts, or oral anal sexual contact. Cysts of E-hysteolytica survive in stomach and excyst to form 20 to 50 µm trophozoites stage.² These trophozoites invade the large intestinal mucosa causing amoebic colitis subsequently enter the blood stream travelling through the portal circulation to reach the liver and cause Amoebic liver abscess.³

BACKGROUND: Entamoeba Hysteolytica is highly endemic in poor to developing nations where sanitation is poor,⁴ and in some nations traditional plant extracted beverage containing 3.8% alcohol (average 0.6%) commonly called as Palm wine, Sur in GOA, Tadikallu etc.⁵ distilled Toddy is called arrack, village Gin and country whisky. It is available in certain seasons collected by an unhygienic procedure, thereby contaminated with amoebic cysts. This beverage is cheap easily available even in severe draught areas mostly men who are regular drunkards of arrack or other refined alcoholic beverages drink it in large quantities.

INCLUSION CRITERIA: Patients with signs and symptoms like short febrile illness with right hypochondrial abdominal pain.

EXCLUSION CRITERIA: patients with septicemia and other serious comorbid conditions.

Patients with admitted in government general hospital Kakinada during the period January 2011 to September 2014 with signs and symptoms like short febrile illness with right

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hypochondrial abdominal pain, after thorough investigation these patients found to have SOL in liver with tenderness suggestive of ALA confirmed by ultra sound guided aspiration of anchovy saus pus typical of ALA. We studied about 153 cases, which were admitted in this hospital. In our study, these cases were distributed as per year wise months wise depicting the seasons, age and sex.

Year	Jan-March	April-June	July-Sep	Oct-Dec
2011	1	25	6	0
2012	1	11	10	1
2013	25	29	11	10
2014	5	12	6	0
Total	32	77	33	11

Table 1

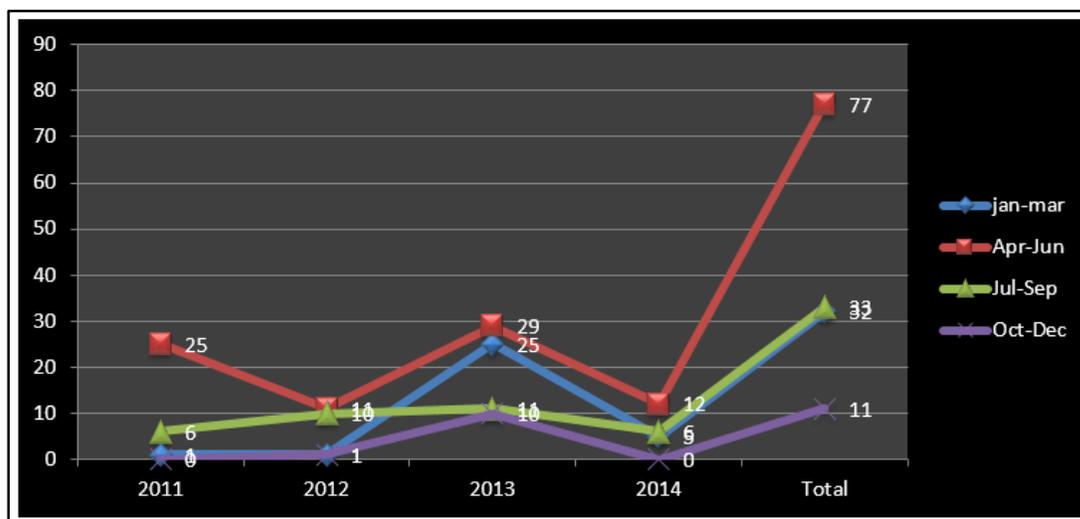


Fig. 1: year and monthwise distribution of Amoebic liver abscess

The P-Value is 0.000123.

The P-Value is 0.000295. In 2013 April-June 29 cases reported out of 77 in 2011, 2012 and 2014, this is due to high rain fall and floods during this year.

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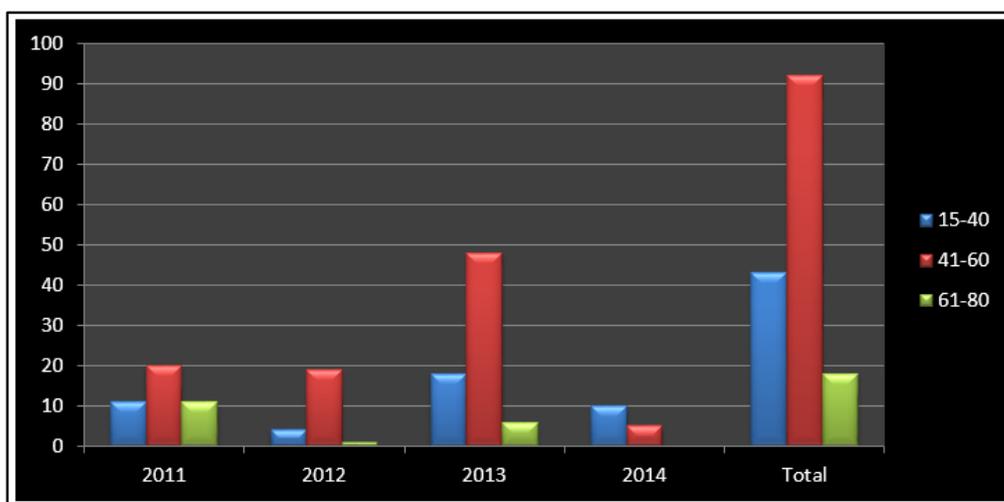


Fig. 2: Age-wise distribution of ALA. The P-Value is 0.001746. The result is significant at $p < 0.05$

Year	15-40 years	41-60 years	61-80 years
2011	11	20	11
2012	4	19	1
2013	18	48	6
2014	10	5	0
Total	43	92	18

Table 2

No woman was admitted with Amoebic liver abscess because of many factors.

DISCUSSION: In the last three years of study in Government General Hospital, Kakinada, East Godavari District, Andhra Pradesh, total of 153 cases were admitted and diagnosed clinically as well as other methods of investigation including physical appearance of the pus as part of diagnosis and therapeutic procedure.⁶

Out of 153 cases 42 were reported in during 2011, 24 in 2012, 72 cases in 2013 and 15 case in 2014 this small group due to short period in 2014 up to September and may be some other causes.

In 2013 large number of cases reported due to heavy rain fall and floods may influence the high prevalence of Amoebic liver abscess, rain fall increase the contamination of toddy since the collection of toddy is conventional.

Months wise (since the seasons are irregular for the past few years) distribution of the cases, more cases reported 77 out of 153 during the months April to June, 33 in July to September, 32 cases in January to march and only 11 cases reported during October to December. This is the period when there is high production of Palm wine.⁵ The other factors like

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some political and social factors might have influenced the prevalence of the ALA, since during the elections and other social events the people might have taken refined liquor rather the toddy.

Regarding the age is concerned more number of cases about 92 out of 153 are in the age group of 41-60 years, 43 cases in the age group of 15-40, only one case of 18 years adolescent with ALA was reported, the rest 18 cases in the age groups 61-80 years.

Sex wise distribution has no significance but we knew the factors.in this study no woman was admitted with ALA, it may be due to women in this area are customarily non-drinkers hence they were free from this disease as well as according to the literature they have gut immunity.⁷

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