



RELATIONSHIP OF LOCAL ALCOHOLIC DRINK (HADIA) IN ETIOLOGY OF LIVER ABSCESS IN TRIBAL POPULATION OF JHARKHAND

Madhurima Prasad*

senior Resident, Department of surgery, RIMS, Ranchi *Corresponding Author

Dr Anjay Kumar

Associate professor, Department of surgery, RIMS, Ranchi

ABSTRACT

Objectives: This study was done to know the incidence and types of liver abscess in people with Hadia addiction in Jharkhand and also various sign and symptoms associated with it at presentation.

Method: Retrospective observational study done at indoor department of RIMS. Simple statistical descriptive measures primarily focusing on measures of central tendency were used. Written consent was taken from all patients. All patients suspected to have liver abscess were confirmed through Ultrasonography and pus was aspirated for analysis. Pregnant females and patients with non-aspirable pus were excluded from study. Detailed history and clinical examination were done in all cases. Anchovy sauce appearance of aspirated pus considered characteristic of amoebic type.

Results: There were 30 patients in which 83.3% were males. 73.7% cases were between 30-50 years of age. About 66.7% of cases were of low socioeconomic strata, and majority (66.7%) were taking Hadia for > 20 years. Almost every patient (100%) had abdominal pain at presentation followed by fever (90%) and jaundice (83.3%). Right hypochondrium tenderness (93.3%), followed by abdominal lump (76.7%) and Hepatomegaly (66.7%) were the most common clinical signs present. 66.7% cases have solitary abscess of which right lobe was involved in 90% of times. TLC was elevated in 93.3% of cases followed by raised ALP and deranged PT (60%).

Conclusion: This study highlights strong association between indigenous variety of alcohol (Hadia) and the development of hepatic amoebiasis. Because Hadia is prepared and stored in very unhygienic conditions and consumers are usually economically poor, malnourished and have an unhealthy lifestyle, the chances of parasitic contamination, transmission and infection remains high. So the need of the hour is to create a greater awareness among tribal people to dissociate themselves from Hadia and improve their personal hygiene so that prevalence of ALA can be decreased

KEYWORDS : Hadia, tribal population, hepatic abscess, clinical presentation

Liver abscess is very frequently encountered problem and is most common intra-abdominal visceral abscess [1]. It is broadly of two types: Amoebic liver abscess (ALA) and pyogenic liver abscess (PLA). Lethal if prompt management not done. In tropical country like India ALA is about 70% whereas in developed countries about 3/4th of abscess are bacterial in origin [2]. ALA caused by Entamoeba Histolytica is presently the third most common cause of death from parasitic diseases [3]. Several studies done in India have suggested association between consumption of local alcoholic drink and ALA.

Hadia is the most commonly consumed alcoholic beverage in rural and tribal area of Jharkhand [4]. It is prepared from fermented rice and brewed in a very aseptic way, so chances of contamination with amoeba are very high. It is commonly consumed by low socio economic status people.

The present study has been undertaken with following

AIMS AND OBJECTIVES:

- a. To study the incidence of liver abscess in people with Hadia addiction in Jharkhand
- b. To study the type of abscess present
- c. To study the various sign and symptoms at presentation of liver abscess

MATERIAL AND METHODS

Place of study:

Department of Surgery at Rajendra Institute of Medical Sciences (RIMS) Ranchi. My study was approved by the institutional ethics committee.

Type of study:

Retrospective observational study

Sampling method:

All patients suspected to have liver abscess were admitted in

indoor of surgery unit in the period of 12 months from June 2018 to may 2019. 36 cases were selected of which 30 cases have been with proven abscess were included in this study.

Inclusion Criterion:

- a. At least one presenting symptom should be coherent with liver abscess.
- b. Ultrasonography must confirm the abscess
- c. more than 18 years of age

Exclusion Criterion:

- a. pregnant females
- b. Non aspirable pus content
- c. Patients who did not cooperate
- d. Ruptured Liver abscess
- e. Malignancy

Statistical method:

Simple statistical descriptive measures primarily focusing on measures of central tendency.

Written consent was taken from all patients. Detailed history and clinical examination were done in all cases. Ultrasound guided aspiration of abscess done and analyzed. Though aspirate was sent to microbiological examination but my study is solely based on the appearance of the pus aspirated. Anchovy sauce appearance of aspirated pus considered characteristic of amoebic type. Drinking at least thrice per week about >200 ml considered as drinker.

OBSERVATION

Sex Ratio

Male	25(83.3%)
Female	5(16.7%)

Males Outnumbered Females.

Age Incidence

Age Group	Percentage
20-30yrs	3(10%)
30-40yrs	10(33.7%)
40-50 Yrs	12(40%)
>50 Yrs	5(16.3%)

Majority Cases Were Between 30-50 Yrs

Socioeconomic Status

Low Socioeconomic Status	20(66.7%)
Medium Socioeconomic Status	7(23.3%)
High Socioeconomic Status	3(10%)

Majority Were Of Low Socioeconomic Status

Alcohol Intake

Hadia	20(66.7%)
Others (Whiskey, Mahua Etc)	7(23.3%)
None	3(10%)

About 66.7% Were Taking Hadia From > 20 Yrs

Clinical Symptom

Abdominal Pain(RHC & Epigastrium)	30(100%)
Yes	30(100%)
Duration Of Symptoms	
<20 Days	21(70%)
>20 Days	9(30%)
Vomiting	
Yes	19(63.3%)
No	11(36.67%)
Fever	
Yes	27(90%)
No	3(10%)
Chills	
Yes	21(70%)
No	9(30%)
Jaundice	
Yes	25(83.3%)
No	5(16.7%)

Almost Every Patient Had Abdominal Pain.

Clinical Sign

Abdominal Distension	
Yes	12(40%)
No	18(60%)
Abdominal Lump	
Yes	23(76.67%)
No	7(23.3%)
Hepatomegaly	
Yes	20(66.67%)
No	10(33.3%)
Right Hypochondrium Tenderness	
Yes	28(93.3%)
No	2(6.67%)

Lab Investigation

Raised ALP	
Yes	22(73.3%)
No	8(26.7%)
Raised TLC	
Yes	28(93.3%)
No	2(6.7%)
Raised PT	
Yes	18(60%)
No	12(40%)

Location of Abscess

Solitary	20(66.7%)
Right Lobe	18
Left Lobe	2
Multiple	10(33.3%)

Right Lobe Had Almost 90 % of All Solitary Abscess

About 70% (N=21) Had Anchovy Sauce Type Pus.

DISCUSSION

About 90% of patients were taking alcoholic drink of which about 70% were taking local alcohol (Hadia). Majority of abscess were of amoebic type (70%). Hai *et al* found 85% of patients with ALA (n=220) were having history of consumption of local alcohol [5]. Sinha CM *et al* in their study of 95 ALA patients in Bihar found association of local alcohol in 80% [6]. Recently Priyadarshi *et al* reported 95% of 117 patients with amoebic liver abscess had strong history of local alcohol intake [7]. A Sri Lankan study [8] also found strong correlation of 79.2% (n=346).

There was a male preponderance (83.3%). 90% of patients were of low socioeconomic status of which majority were between 30 to 50 yrs of age. It is in accordance as male sex with poor socioeconomic status/ poor hygiene links them with Hadia which result in liver abscess. Saumik ghosh *et al* in their study found that among ALA patients 72% were alcoholic and 67.5% were of low socioeconomic status [9]. F Alam *et al* [10] found alcohol consumption among 80% of patients with ALA and male to female ratio as 21:1.

Relationship between alcohol consumption and ALA is more than casual. It can be explained through multitude of mechanism. Alcohol facilitates extra intestinal invasion of E.Histolytica and subsequent development of ALA through hyper permeability and dysbiosis of intestinal bacteria [11].It induces liver damage [12] and depresses immune response [13, 14, 15]. Association with poor hygiene further increases disease progression and extent of liver injury [16] , thus worsens prognosis and makes treatment difficult.

SUMMARY AND CONCLUSION

This study highlights strong association between indigenous variety of alcohol (Hadia) and the development of hepatic amoebiasis Because Hadia is prepared and stored in very unhygienic conditions and consumers are usually economically poor, malnourished and have an unhealthy lifestyle, the chances of parasitic contamination, transmission and infection remains high. So the need of the hour is to create a greater awareness among tribal people to dissociate themselves from Hadia and improve their personal hygiene so that prevalence of ALA can be decreased

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