



**ORIGINAL RESEARCH PAPER**

**Medicine**

**A STUDY ON ETIOLOGICAL PROFILE OF ASCITES**

**KEY WORDS:**

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**ABSTRACT**

Ascites is the accumulation of free fluid in the peritoneal cavity. All potential spaces including peritoneum have surfaces that almost touch each other with only a thin layer of fluid in between and the surfaces slide over each other. To facilitate the sliding, a viscous proteinaceous fluid lubricates the surface. About 50 ml fluid is normally present in the peritoneal cavity for the purpose of lubrication. Subclinical amount of fluid as little as 100 ml may be detected by abdominal USG. Aims and objectives of the study was To know different etiology of ascites, Toknow different types of ascites, To know prevalence of different types of ascites, To know most common and least common cause of ascites in this demographic region. In the present study, 50 patients with clinically evident asites of both sexes and various age group were selected and studied for etiological profile of ascites. The purpose of the study was to know different etiology of ascites, to know different types of ascites and to know most common and less common cause of ascites. Conclusions that have been drawn from the present study are, High gradient ascites is more common than low gradient ascites in this demographic region(94% vs 6%), Cirrhosis is the most common cause of ascites.(76%), Cirrhosis is the most common cause of high gradient ascites, Alcohol abuse is the most common cause responsible for development of cirrhosis, Alcohol abuse is exclusively linked to males, Viral hepatitis is the second most common cause for development of cirrhosis, Peritoneal tuberculosis is the most common cause of low gradient ascites, Quantity and duration of alcohol intake is the most important risk factor for development of alcoholic liver disease.

**Introduction**

Ascites is the accumulation of free fluid in the peritoneal cavity. All potential spaces including peritoneum have surfaces that almost touch each other with only a thin layer of fluid in between and the surfaces slide over each other. To facilitate the sliding, a viscous proteinaceous fluid lubricates the surface. About 50 ml fluid is normally present in the peritoneal cavity for the purpose of lubrication. Subclinical amount of fluid as little as 100 ml may be detected by abdominal USG. Ascites may be one of the manifestation of the primary disease or a part of the complication due to tuberculosis or malignancy. Ascites is diagnosed clinically and confirmed by radiology or aspiration of fluid. To become clinically evident at least 1500 ml of fluid has to accumulate. Peritonitis is the cause as well as complication of ascites.

**Aims and objectives :-**

1. To know different etiology of ascites.
2. Toknow different types of ascites.
3. To know prevalence of different types of ascites.
4. To know most common and least common cause of ascites in this demographic region.

**Materials & methods:-**

The study was done on 50 cases admitted during last one year at Department Of Medicine, Patna Medical College & Hospital, Patna. Males and females above 12 years of age admitted with clinically evident ascites were subjected for study. All those patients selected for the study were evaluated in the following manner :

Age, sex, presenting complaints, detailed history, physical examination both general & systemic examination, complete biochemical and radiological investigations.

**Observations :-**

**Table 1 No. of cases included in present study:-**

S.no.	Groups	No. of cases	Percentage of cases
1	Male	38	76
2	Female	12	24

**Table 2. showing different age groups of patients :-**

Age groups	No. of cases	Percentage
<20 Years	1	2
21-30 Yrs	4	8

31-40 yrs	5	10
41-50 Yrs	8	16
51-60 Yrs	12	24
61-70 Yrs	14	28
>70 Yrs	6	12

**Table 3. showing different etiologies of Ascites:-**

Etiology	No. of cases	Percentage
Alcoholic liver disease	31	62
Viral hepatitis	7	14
CCF	5	10
Malignancy	3	6
Budd- chiari syndrome	1	2
Tuberculosis	2	4
Nephritic syndrome	1	2

**Table 4. showing percentage of cases with alcohol abuse :-**

Groups	No. of cases	Percentage of cases
Alcoholic	31	62
Non- alcoholic	19	38

**Table 5. showing percentage of cases who smoke :-**

Groups	No. of cases	Percentage of cases
Smokers	35	70
Non-smokers	15	30

**Table 6. showing percentage of cases with cirrhosis :-**

Group	No. of cases	Percentage of cases
With cirrhosis	38	76
Without cirrhosis	12	24

**Table 7. showing different etiology of cirrhosis :-**

Etiology	No. of cases	Percentage of cases
Alcohol	31	78
Chronic hepatitis	7	22

**Table 8. showing Percentage of cases with different types of Ascites:-**

Groups	No. of cases	Percentage of cases
High gradient	47	94
Low gradient	3	6

**Discussion :-**

Study was carried out on 50 patients with clinically evident ascites

admitted during last one year at Department Of Medicine/ Patna Medical College & Hospital, Patna. all the subjects after their consent were asked about past history of jaundice, hematemesis, malena, ankle edema, alcohol abuse, smoking, recent history of weight gain. All patients were advised CBC, Blood urea, serum creatinine, LFT and USG whole abdomen.

CT abdomen was advised in only 4 cases. After diagnostic paracentesis under hygienic condition, ascetic fluids of all patients were sent for microbiological, biochemical, and cytological analysis. In addition, therapeutic paracentesis was done in 15 patients to relieve symptoms. SAAG is a sensitive marker of oncotic hydrostatic pressure imbalance. Patients were classified according to the level of SAAG into high gradient (SAAG>1.1 g/dl) and low gradient(SAAG<1.1 g/dl). High gradient SAAG shows that ascites is due to portal hypertension with 99 % specificity.

In the present study, out of 50 patients, 38 were males and 12 females. 10 % belonged to age group 31-40 years, 16% to 41-50 years, 24 % to 51-60 years, 28 % to 61-70 years and 12 % to age group > 70 years. 62 % of cases were caused by alcohol abuse, 14% by chronic hepatitis, 10% by CCF. Malignancy, TB, Nephrotic syndrome and hepatic vein thrombosis are less frequent causes. In the present study, out of 50 patients, 62 % of patients are alcoholic. So alcohol must be an important risk factor for development of ascites. Most of the patients gave history of alcohol abuse for prolonged period. Out of 50 patients, 76% of patients included in the study were cirrhotic at the time of presentation. Cirrhotic liver appear small shrunken with nodule formations on abdominal ultrasonography. Alcohol was responsible most probably in 78% of cases with cirrhosis of liver. Chronic hepatitis is responsible for development of disease in 22% of cases. Hepatitis B is the most common cause of chronic hepatitis (6 out of 7 patients were positive for HBV). Patients with alcoholic liver disease were 100 % male whereas in chronic hepatitis female (71%) exceeds male(22%). It was found that high gradient ascites (94%) is far common than low gradient ascites(6%). A SAAG value of >1.45 is a useful means to predict the presence of esophageal varices in patients with ascites (more predictive in alcoholic cirrhosis.).

#### SUMMARY AND CONCLUSION :-

In the present study, 50 patients with clinically evident ascites of both sexes and various age group were selected and studied for etiological profile of ascites. The purpose of the study was to know different etiology of ascites, to know different types of ascites and to know most common and less common cause of ascites.

The following conclusions have been drawn from the present study:-

1. High gradient ascites is more common than low gradient ascites in this demographic region(94% vs 6%).
2. Cirrhosis is the most common cause of ascites.(76%).
3. Cirrhosis is the most common cause of high gradient ascites.
4. Alcohol abuse is the most common cause responsible for development of cirrhosis.
5. Alcohol abuse is exclusively linked to males.
6. Viral hepatitis is the second most common cause for development of cirrhosis.
7. Peritoneal tuberculosis is the most common cause of low gradient ascites.
8. Quantity and duration of alcohol intake is the most important risk factor for development of alcoholic liver disease.
9. Incidence of ascites increases with age.
10. Ascites is more common in males than females.
11. CCF is the 3<sup>rd</sup> leading cause of ascites in this demographic region.

This study delivers the fact that cirrhosis is the most common cause of ascites (76%). Alcohol abuse is an important risk factor for development of ascites (96 %). Per capita alcohol consumption gives us an idea about the acceptance of alcohol in the society and unfortunately it is increasing in underdeveloped region and posing a serious health concern to society.

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