

The Study of Clinical and Epidemiological Profile of Gall Bladder Diseases at a Tertiary Care Hospital

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How to cite this article:

Arun Bhavikatti, Santhosh Laxman, The Study of Clinical and Epidemiological Profile of Gall Bladder Diseases at a Tertiary Care Hospital. *New Indian J Surg.* 2020;11(3):299–302.

Abstract

Context: Gallbladder disease is one of the most common gastrointestinal conditions in the Indian population, but its true prevalence is unknown. Gallbladder diseases are a common cause of morbidity and among the most expensive digestive tract disorders¹. A population-based survey was performed to determine the age, sex, and other clinical and epidemiological profile of gallbladder disease.

Aims: To study the epidemiological profile of patients with gall bladder diseases.

To study the clinical profile of the patients with gall bladder diseases.

Settings and Design: This is a tertiary care hospital done study descriptive observational study.

Methods and Material: This study was conducted in a tertiary care hospital of north Karnataka. In this study total 200 cases admitted for gall bladder related gastrointestinal complaints were screened and studied. They were evaluated for gall bladder diseases clinically and radiological. Total 200 cases with gall bladder disease were identified and studied in details

Statistical analysis used: Statistical analysis was done using ratios and percentage

Results: Maximum number of patients [60%] was females. Maximum number of cases [60%] was present in fifth decade age group. Right

hypochondrial tenderness was present in 94.5% cases. Maximum number of cases had pain abdomen [94.5%] and fatigue [95%] as a major presenting symptom. Acalculous gall stone disease was most common diagnosed entity accounting for 43.5% of cases.

Conclusions: Gall bladder diseases are more common in females, commonest age group affected is fifth decade. Right hypochondrial tenderness, fatigue fever are common clinical manifestations.

Keywords: Cholelithiasis; Females; Right hypochondrial tenderness.

Introduction

Biliary tract disease is common in developing countries like India and a frequent indication for abdominal surgery and cholelithiasis is the most important cause of biliary tract disease.² There is limited information on the prevalence of biliary tract disease in developing countries and it is not known whether the biliary tract disease is less frequent or more likely to be asymptomatic. Moreover, ascariasis is as common as gall stone in causation of symptomatic biliary and or pancreatic disease in endemic areas.³ Symptomatic cholelithiasis is a common medical problem, which makes cholecystectomy one of the most frequently performed surgical procedures in the world. Choledocholithiasis complicates the workup and management of cholelithiasis, necessitates additional diagnostic and therapeutic procedures, and adds to the morbidity and mortality of

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gallstone disease. Common bile duct stones are the most important cause of obstructive jaundice and cholangitis. Approximately 11% of patients with gall bladder stones will have associated common bile duct stones at the time of operation. 1Between 5 to 7% of common bile duct stones found at operation may be unsuspected by preoperative evaluation. The management of patients with known bile duct stones as well as gallbladder stones will vary between countries and between institutions. In contrast, open operations are likely to remain standard treatment in many developing countries as endoscopic services are limited and laparoscopic equipment is expensive.⁴

Aims and objectives:

To study the epidemiological profile of patients with gall bladder diseases.

To study the clinical profile of the patients with gall bladder diseases.

Subjects and Methods

This study was conducted in a tertiary care hospital of north Karnataka. 'The Study of Clinical and Epidemiological Profile of Gall Stone Diseases At A Tertiary Care Hospital' is an observational descriptive analysis study. This study was conducted between January 2018 to December 2018. Radiological and other needful investigations and procedures were done to confirm the diagnosis and cases were managed accordingly.

Inclusion criteria's:

Age 14 years and more.

Patients admitted for gall bladder diseases confirmed by radiological and surgical interventions.

Patients admitted between January 2018 to December 2018.

Exclusion criteria's:

Age less than 14 years.

Patients admitted for non-gallbladder diseases confirmed by radiological and surgical interventions.

Patients admitted before January 2018 and after December 2018.

Statistical analysis:

Statistical analysis was done by using simple ratio and percentages. Microsoft 2010 was used to generate tables.

Result

Maximum number of patients 60% was females. 40% of cases were male patients. The male to female ratio was 2: 3.

There were no cases in second decade. 7.5% cases were present in third decade 22.5% cases were present in fourth decade. Maximum number of cases 60% was present in fifth decade age group. There were 5% cases each in sixth decade and above 61 years age group.

Right hypochondrial tenderness was present in 94.5% cases. 68.5% cases had tachycardia and icterus was seen in 30% of cases.

Vomiting was seen in 30% of cases. Maximum number of cases had pain abdomen 94.5% and fatigue 95% as a major presenting symptom. Pruritus

Was seen in 45% of cases .fever was present in 68.5% of cases.

Acaculous gall stone disease was most common diagnosed entity accounting for 43.5% of cases. Next common cause of gall bladder disease was cholelithiasis and it was present in 39% of cases. Cholelithiasis with common bile duct stone was present in 9.5% of cases. Cholelithiasis with common bile duct stricture was present in 8% of cases.

Table 1: Sex distribution.

Sex	Number of cases	Percentage
Males	80	40
Females	120	60

Table 2: Age distribution.

Age in years	Number of cases	Percentage
14 - 20	0	0
21 - 30	15	7.5
31-40	45	22.5
41-50	120	60
51-60	10	5
61 and above	10	5

Table 3: Analysis of signs

Signs	Number of cases	Percentage
Icterus	60	30
Right hypochondrial tenderness	189	94.5
Tachycardia	137	68.5

Table 4: Analysis of symptoms.

Symptoms	Number of cases	percentage
Vomiting	60	30
Pain abdomen	189	94.5
Fatigue	190	95
Pruritus	90	45
Fever	137	68.5

Table 5: Diagnosed gall bladder diseases.

Symptoms	Number of cases	percentage
Cholelithiasis	78	39
Cholelithiasis with common bile duct stone	19	9.5
Cholelithiasis with common bile duct stricture	16	8
Acalculous gall bladder disease	87	43.5

Discussion

Sex distribution of cases

In this study total 200 cases were included. All these case were clinically, radiologically diagnosed and where ever required were surgically intervened. Among these 200 cases 120 cases were females and remaining 80 cases were males. Our study correlates with the study done by Bainton DB, Davies GT, Evans KT, et. al. ⁵where the prevalence of gall stone disease was more common in females as that of males with 69 %.This increased female preponderance can be attributed to physiological endocrine response such as estrogen and progesterone production leading to increased biliary secretions.

Age distribution of cases

In this study maximum numbers of cases were present in fifth decade age group. The age distribution in our study showed the prevalence of gall bladder disease is very low in second decade, fifth decade, and sixth decade and above age group. Our study correlates with the study done by Wani et. al.⁶ where maximum numbers of patients having gall stone disease were belonging to fifth decade age group and few patients were present in all other age group. This age related phenomenon can be explained with the fact that as age advances cholesterol release in biliary secretions increases

leading to increased prevalence of gall bladder disease.

Signs and symptoms in cases

In our study commonest presenting symptoms were fatigue, vomiting, pruritus, febrile episodes and pain abdomen. The various signs commonly present were right hypochondrial. All these signs and symptoms can be attributed to the gall bladder inflammation and impaired biliary tract drainage. Inflammation leads to pain abdomen more specifically in right hypochondrium. Our study correlates with the study done by Abdel Rahim B, et. al.⁷ where abdominal pain, fatigue and fever were the commonest manifestations.

Diagnosed gall bladder diseases

In our study out of 200 clinically, radiologically and surgically diagnosed cases gall bladder diseases, acalculous gall bladder disease was the more common entity. It included conditions such as cholecystitis. Acalculous gall bladder disease accounted for 43.5% of all cases. Next group was of cholelithiasis and was seen in 39% of cases. 9.5% cases had cholelithiasis with common bile duct stone. Cholelithiasis with common bile duct stricture was seen in 8% of cases. Our study correlates with the study done by Lille Moe et. al.⁸ where 33% cases had cholelithiasis. the study done by Stinton LM et. al.⁹ showed the incidence of gall bladder diseases associated with common bile dust stones and stricture od common bile duct is much lower as compared to acalculous gall bladder disease and cholelithiasis.The results obtained in our study strongly correlates with the results obtained in the study done by Stinton LM.⁹

Conclusion

Gall bladder diseases are more common in females, commonest age group affected is fifth decade. Right hypochondrial tenderness, fatigue fever are common clinical manifestations. Acalculous gall bladder diseases are commonest presenting gall bladder pathology.

Acknowledgement:

We would like to thank our patients who participated in this study. Also we are thankful to our colleagues and paramedical staff who helped and supported us throughout the study

Conflict of Interest: Nil

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