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Key Words

Cholecystitis, cholelithiasis, cholecystectomy, prevalence

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Received: 20 August 2024

Accepted: 25 November 2024

Published: 29 November 2024

Citation: Dr. Gautam Kamal, Dr. Pranjit Deka, Dr. Anindya Baruah, Dr. Diganta Bora and Dr. Chinmoyee Deori, 2024. Cholecystectomy Among Patients Admitted in Tertiary Care Hospital, North Lakhimpur: A Descriptive Cross Sectional Study. Res. J. Med. Sci., 18: 413-415, doi: 10.36478/makrjms.2024.12.413.415

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Cholecystectomy Among Patients Admitted in Tertiary Care Hospital, North Lakhimpur: A Descriptive Cross Sectional Study

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ABSTRACT

Biliary tract disease is a common findings in the Emergency rooms, Out patients Departments and Indoors. And inflammation of Gallbladder (Cholecystitis) or Gall stones (Cholelithiasi) are the most common reasons for patient's admission. Cholecystectomy is the most preferred surgical treatment for this conditions. In our study we tried to find out the burden of cholecystectomy patients in Lakhimpur Medical College and Hospital, a peripheral tertiary Medical college in Assam. Our aim is to find out the prevalence of cholecystectomy among patients admitted in department of general surgery, Lakhimpur Medical College and Hospital, North Lakhimpur. After obtaining approval from institutional ethical committee, data was collected from medical records department of Lakhimpur Medical College and Hospital, North Lakhimpur. Data was collected for a period of 3 years from 25th June 2021 to 25th June 2024. The total number of patients admitted in the department of surgery was taken, which was found to be 7772. Our study included 1068 patients who underwent cholecystectomy. The demographic profile of the patients were collected in respect to age and sex. The Prevalence of Cholecystectomy Patients was found to be 13.7%, of which 21.9% were males and 78.1% were females. The most common indication for cholecystectomy was Chronic calculous Cholecystitis with 80.5%.

INTRODUCTION

Biliary tract diseases are the commonest abdominal conditions, probably next to appendicitis^[1], that the surgeons, gastroenterologist and radiologist encounter in day to day life and gall bladder disease are the most frequently encountered biliary tract disease^[2]. Acute cholecystitis is a pathology of inflammatory origin, usually associated with cholelithiasis^[3], with a higher incidence in our environment. Complications of acute inflammation of gall bladder includes chronic inflammation, empyema, mucocele and perforation of gallbladder. Cholecystectomy refers to the surgical removal of the gallbladder^[4]. It is indicated in gallstone disease, chronic cholecystitis, acute cholecystitis, mucocele of gall bladder, empyema of gallbladder, cholesterosis of gall bladder, porcelain gall bladder, gallbladder polyp, acalculous cholecystitis and gallbladder cancer^[5]. Symptomatic cholelithiasis is one of the most common presenting complaints among patients with acute abdomen to the emergency department. It can result in various other conditions such as cholecystitis, pancreatitis, obstruction of the biliary tract and gall bladder cancer, leading to a significant medical burden^[6,7]. The prevalence of cholelithiasis differs not only between countries but also among different ethnic groups, age groups and genders, differences in dietary and lifestyle patterns with a preference for junk food and sedentary lifestyles and the incidence of gallstones is rising globally^[8].

Aims: Our aim is to find out the prevalence of cholecystectomy among patients admitted in department of general surgery, Lakhimpur Medical College and Hospital, North Lakhimpur.

Objectives: To evaluate the prevalence of cholecystectomy in patients admitted in surgery department, Lakhimpur Medical College and Hospital.

MATERIALS AND METHODS

After obtaining approval from institutional ethical committee (Imc/iec(h)/22), data was collected from medical records department of Lakhimpur Medical College and Hospital, North Lakhimpur, a peripheral tertiary medical care in Assam. Data was collected for a period of 3 years from 25th June 2021 to 25th June 2024. The total number of patients admitted in the department of surgery was taken, which was found to be 7772. Our study included 1068 patients who underwent cholecystectomy. The demographic profile of the patients were collected in respect to age and sex.

RESULTS AND DISCUSSIONS

In our study, a total of 7772, patients were found to be admitted in the department of surgery and 1068

(13.7%) had undergone cholecystectomy, of which 234 (21.9%) were males and 834 (78.1%) were females. Age distribution of patients were from (15-75) yrs in males and (11-89) yrs in females. The most common indication of cholecystectomy was found to be chronic calculous cholecystitis with 860 patients (80.5%), followed by acute calculous Cholecystitis with 94 patients (8.8%).

Table 1 Age Distribution of Patients Undergoing Cholecystectomy

Age group	Male	Female	Total
11-20	6	38	44
21-30	33	260	293
31-40	58	252	310
41-50	59	162	221
51-60	55	94	149
61-70	19	23	42
71-80	4	3	7
81-90	0	2	2
	234	834	1068

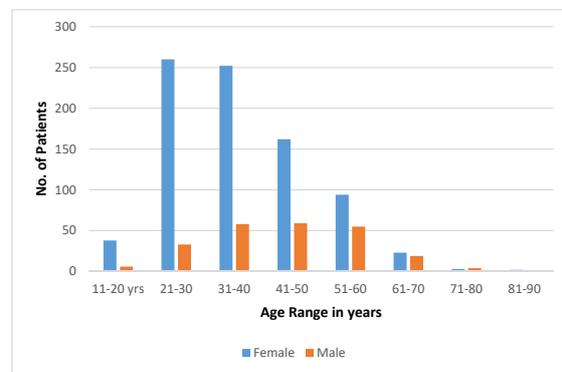


Fig. 1: Age Distribution

Table 2: Gender Distribution of Patients Undergoing Cholecystectomy

Gender	no	%
Male	234	21.9
Female	834	78.1

Table 3: Indication of Patients Undergoing Cholecystectomy

Indications of cholecystectomy	no	%
Acute calculus cholecystitis	94	8.8
Chronic calculus cholecystitis	860	80.5
Gall bladder polyp	21	1.9
Choledocholithiasis	49	4.5
Asymptomatic cholelithiasis	33	3.0
Mucocele Gallbladder	5	0.46
Empyema Gallbladder	4	0.37
Ca gall bladder	2	0.18

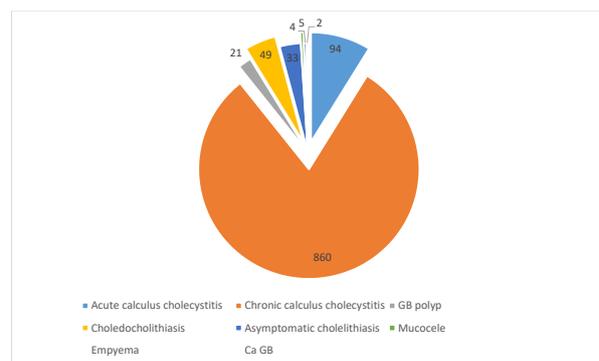


Fig. 2: Indications of Cholecystectomy

Gall stones is one of the most common cause of patients complaints and indication for cholecystectomy. There is a clear co relation between cholelithiasis and age, sex, food habits^[8]. The prevalence of cholecystectomy in our study is 13.7% (1068/7772). The mean age of patients for cholecystectomy was 40.55±12 years, with 44.02±12.95 for males and 37.08±12.01 for females. About 78.1% (834) of the patients undergoing cholecystectomy were females and 21.9% (234) were males. Our study results are similar to the findings of Kishor Kumar^[9,10] and Thamil Selvi^[11]. The most common cause of cholecystectomy was chronic calculous cholecystitis, with a prevalence of 80.5%. It is in accordance to the findings of Harendra Kumar^[12]. Our study has its own limitations, as it is based on a single institution data, we cannot generalize our results. We will need a multi centric and larger study period to have a generalized result.

CONCLUSION

We have found the prevalence of cholecystectomy to be 13.7%, where male: female was found to be 1:4 (234:834). Whereas males in (41-50) and females in (21-30) age group were in majority. And the most common indication was chronic calculous cholelithiasis with 80.5%.

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