



A STUDY OF CLINICAL PRESENTATION OF GALLSTONE DISEASE AND ITS MANAGEMENT AMONG ADMITTED PATIENTS IN BIHAR

General Surgery

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ABSTRACT

INTRODUCTION: Diseases of the gallbladder commonly manifest as gallstones and gallbladder cancer. To identify risk factors in a given population, epidemiological studies must first define the frequency of disease.¹ Studies employing necropsy surveys or healthcare databases carry biases by their implicit nature: being postmortem or requiring biliary symptoms/complications, respectively.

AIMS & OBJECTIVE: To assess the relevant sociodemographic characteristics, relevant history and clinical profile of the study population.

METHODOLOGY: **Study Area:** The study was conducted DEPARTMENT OF GENERAL SURGERY, PARAS GLOBAL HOSPITAL, DARBHANGA. It is having a capacity of 252 indoor beds in the Department of Surgery and associated academic section, catering to people of several districts. The study shall be done in the Surgery Indoor of his hospital.

Duration of Study: Twelve Months

RESULT AND ANALYSIS: We found in our study 37(5.9%) patients had GB Wall thickness. 12(1.9%) patients had GB Commet tail appearance, 8(1.3%) patients had GB Mass and 1(0.2%) patients had GB Mass fundus. 52(8.4%) patients had CBD stone. 1(0.2%) patient had Irregular wall thickening GB body and 407(65.3%) patients had MRCP.

52(8.4%) patients had CT. 1(0.2%) patient had GB Thickening and 1(0.2%) patient had EUS. 34(5.5%) patients had Conservative. 17(2.7%) patients had ERCP and 1(0.2%) patient had failed ESRCP on 14/3/18.

SUMMARY AND CONCLUSION: We found that 22(3.5%) patients had post-operative jaundice. 8(1.3%) patients had post-operative pancreatitis. 622(100.0%) patients had no post-operative cases of retained stone. 13(2.1%) patients had post-operative significant pain abdomen. It was found that 611(98.1%) patients had monthly. 10(1.6%) patients had lost follow-up.

We concluded that symptomatic gallstone diseases were more common in > 35 Years with a female predominance.

KEYWORDS

Gallstone Disease, Management, General Surgery And Cross Sectional

INTRODUCTION

Diseases of the gallbladder commonly manifest as gallstones and gallbladder cancer. To identify risk factors in a given population, epidemiological studies must first define the frequency of disease.¹ Studies employing necropsy surveys or healthcare databases carry biases by their implicit nature: being postmortem or requiring biliary symptoms/complications, respectively. Another potential measure of disease burden, the frequency of cholecystectomy, is a limited marker for the prevalence of gallstones, as the perceived threshold for surgery and patient access to care differ greatly. Some epidemiological studies have been confounded by inadequate sample size or selection bias. Small sample size is open to a beta-II type error: a failure to accurately identify a true difference (i.e., a false negative result). Selection bias may lead to spurious differences (i.e., a false positive result). More reliable epidemiological studies now use transabdominal ultrasound to screen robust numbers in defined asymptomatic populations. Ultrasonography is an ideal means to quantitate the frequency of gallstone disease, being a noninvasive and safe imaging technique that accurately can detect the point prevalence of gallstones in a defined asymptomatic population.²

The importance of gallstone disease derives from their frequency and pathological potential. It is estimated that gallstones affect 10-15 per cent of the population in western societies. They are asymptomatic in the majority of cases (>80 per cent). Approximately, 1-2 per cent of asymptomatic patients will develop symptoms requiring surgery per year, making cholecystectomy one of the most common operations performed by general surgeons. Patients with asymptomatic gallstones have less than 20% chance of ever developing symptoms, and the risks associated with "prophylactic" operation outweigh the potential benefit of surgery in most patients. However, the consequences of gallstones may be ranging from brief episodes of biliary colic, chronic cholecystitis, mucocele, empyema, cholangitis, obstructive jaundice to potentially life threatening complications such as acute cholecystitis and pancreatitis, perforation leading to peritonitis, fistula formation or, rarely, gall bladder cancer.³ Biliary colic is the common presentation of symptomatic gallstones. Biliary colic is typically a severe and episodic right upper abdominal or epigastric pain that often radiates to the back. Attacks frequently occur postprandially or awaken the patient from sleep. Once a patient begins to experience symptoms, there is a greater than 80% chance that she will continue to have symptoms.³ There is also a finite risk of disease related complications such as acute

cholecystitis, gallstone pancreatitis and choledocholithiasis. Therefore, elective cholecystectomy is indicated after the first episode of typical biliary symptoms. First described in 1882 by Langenbuch, open cholecystectomy (OC) has been the primary treatment of gallstone disease for most of the past century.⁴

1. To assess the relevant socio demographic characteristics, relevant history and clinical profile of the study population.
2. To study the management and outcome of surgery of these patient.

METHODOLOGY

Study Area: The study DEPARTMENT OF GENERAL SURGERY, PARAS GLOBAL HOSPITAL, DARBHANGA. It is having a capacity of 252 indoor beds in the Department of Surgery and associated academic section, catering to people of several districts. The study shall be done in the Surgery Indoor of his hospital.

Duration of Study: Twelve Months

INCLUSION CRITERIA:

Patients giving consent for inclusion in this study only to be included.

EXCLUSION CRITERIA:

Patient having adverse outcomes, thus unable give previous history, patients who are discharged with risk bond.

Sample Size: It is seen that about 3 patients of such diseases get admitted every day with this background in twelve months, visiting the Indoor twice weekly the data of 250 patients can be collected.

RESULT AND ANALYSIS

Our study showed that 224(36.0%) patients had ≤35 years of age and 339(64.0%) patients had >35 years of age. 530(85.1%) patients had female and 93(14.9%) patients had male. 448(71.9%) patients had Hindu and 175(28.1%) patients had Muslim. 343(55.1%) patients had rural and 280(44.9%) patients had urban. 227(36.4%) patients had 3 family members, 153(24.6%) patients had 4 family members and 243(39.0%) patients had 5 family members. 254(40.8%) patients had HTN. 73(11.7%) patients had thyroid disorders. 103(16.5%) patients had diabetes mellitus. 137(22.0%) patients had typhoid. 7(1.1%) patients had tuberculosis. 265(42.5%) patients had past history of jaundice. 64(10.3%) patients had pancreatitis past history. 337(54.1%)

patients had Previous surgical/operative history. 194(31.1%) patients had LUCS. 12(1.9%) patients had Pancreatitis Recent History. 623(100.0%) patients had dyspnea. 598(96.0%) patients had flatulence. 616(98.9%) patients had nausea. 606(97.3%) patients had pain abdomen. 600(96.3%) patients had anorexia. 385(61.8%) patients had vomiting. 64(10.3%) patients had lost weight. 38(6.1%) patients had jaundice. 389(62.4%) patients had food intolerance to fatty/spicy food. 56(9.0%) patients had palpable GB. 622(100.0%) patients had WNL in urine RE/ME. 622(100.0%) patients had WNL in urine for C/S.

We found in our study 37(5.9%) patients had GB Wall thickness. 12(1.9%) patients had GB Commet tail appearance, 8(1.3%) patients had GB Mass and 1(0.2%) patients had GB Mass fundus. 52(8.4%) patients had CBD stone. 1(0.2%) patient had Irregular wall thickening GB body and 407(65.3%) patients had MRCP. 52(8.4%) patients had CT. 1(0.2%) patient had GB Thickening and 1(0.2%) patient had EUS. 34(5.5%) patients had Conservative. 17(2.7%) patients had ERCP and 1(0.2%) patient had failed ESRCF on 14/3/18. 507(81.5%) patients had uneventful and 70(11.3%) patients had Uneventful. 22(3.5%) patients had post-operative jaundice. 8(1.3%) patients had post operative pancreatitis. 622(100.0%) patients had no post operative cases of retained stone. 13(2.1%) patients had post operative significant pain abdomen. 13(2.1%) patients had Biliary peritonitis reirring re-look surgery. 622(100.0%) patients had death. 611(98.1%) patients had monthly. 10(1.6%) patients had lost follow-up. The mean age (mean±s.d.) of patients was 42.2825 ± 14.3524 years. The mean family income (mean±s.d.) of patients was 12110.7544 ± 3919.0683. The mean family members (mean±s.d.) of patients were 4.0257 ± .8689. The mean PCI (mean±s.d.) of patients was 3150.8561 ± 1254.4747.

We showed that the mean BGP scale 2018 (mean±s.d.) of patients was 2.7608 ± .7430. The mean last attack of acute attack of pain Abd (mean±s.d.) of patients was 2.6807 ± 1.2605. The mean bilirubin (total) (mean±s.d.) of patients was 1.0300 ± 1.2618 mg/dl. The mean bilirubin (C) (mean±s.d.) of patients was .4059 ± .8038 mg/dl. The mean bilirubin (UC) (mean±s.d.) of patients was .6156 ± .4815 mg/dl. The mean SGOT/AST (mean±s.d.) of patients was 32.9278 ± 11.7042 IU/l. The mean SGPT/ALT (mean±s.d.) of patients was 32.1210 ± 10.3716 IU/l. The mean ALP (mean±s.d.) of patients was 165.2183 ± 107.7289 U/L. The mean Protein (T) (mean±s.d.) of patients was 7.2178 ± .5996 gm/dl. The mean Albumin (mean±s.d.) of patients was 4.2007 ± .6347 mg/dl. The mean Globulin (mean±s.d.) of patients was 3.0292 ± .3964 mg/dl. The mean EF (mean±s.d.) of patients was 63.4931 ± 3.4059%. The mean CBD (mean±s.d.) of patients was 3.6593 ± 2.4107 mm. The mean GB Wall thickness (mean±s.d.) of patients was 3.3449 ± 2.2419.

DISCUSSION

Lokesh K et al ⁵ (2017) found that age varies from 11 to 70 years. 3 patients (3%) were in the age group 11 - 20 years, 11 patients (11%) were in the 21- 30 age group, 26(26%) were between 31 – 40 years, 26 (26%) were in the age group between 41 - 50 years, 23 (23%) were in the age group 51 - 60 of age group and 11 (11%) were between 61 – 70 years.

Mora-Guzmán I et al ⁶ (2019) found that mean age was 80.4 ± 7.2 years, 127 (56%) were female. The main causes of index hospitalization were acute cholecystitis (58%) and biliary pancreatitis (18.1%). After 2 years of follow-up, the recurrence rate was 39.8%; mean time to recurrence was 255.2 ± 42.1 days, 81% of patients recurred within 1 year. Bile duct disease implied a higher recurrence rate than the gallbladder disease group (52% vs 33%, p < 0.001).

Nassar Y et al ⁷ (2019) found that patients aged between 60 and 79 years, the female gender predicted a shorter duration of stay in the hospital. A patient's age negatively affects the treatment outcomes of cholelithiasis with associated complications.

Bansal A et al ⁸ (2016) found that the prevalence of cholelithiasis varies and has been reported as 2-29% in India, and increased in the recent years. In the present study, apart from studying the epidemiology i.e., demographic factors, dietary habits, clinical presentation, diagnostic tools and management, it also looks at the stone analysis, bile culture and complications after surgery in rural population in central India.

We found that 224(36.0%) patients had ≤35 years of age and

339(64.0%) patients had >35 years of age. 530(85.1%) patients had female and 93(14.9%) patients had male. 448(71.9%) patients had Hindu and 175(28.1%) patients had Muslim.

It was found that 343(55.1%) patients had rural and 280(44.9%) patients had urban. 227(36.4%) patients had 3 family members, 153(24.6%) patients had 4 family members and 243(39.0%) patients had 5 family members.

We found that 254(40.8%) patients had HTN. 73(11.7%) patients had thyroid disorders. 103(16.5%) patients had diabetes mellitus. 137(22.0%) patients had typhoid. 7(1.1%) patients had tuberculosis.

Liang TJ et al ⁹ (2017) found that during the follow-up period (mean 4.1 years; median, 2.9 years), 1280 (7.4%) patients developed gallstone disease and 560 (3.2%) patients subsequently underwent cholecystectomy.

Constantinescu T et al ¹⁰ (2012) found that the risk factors considered were gender, pregnancy, use of oral contraceptives, family history of gallstone disease and diabetes mellitus, socioeconomic status, body mass index (BMI) and dyslipidemia. 244 (48.13%) patients were under the age of 30 years, out of 507. There were 208 females (85.2%) and 36 males (14.8%) with a mean age of 26.2±2.98 years. All patients presented with symptomatic disease. BMI, dyslipidemia and socioeconomic status were associated with gallstone disease. No link was noted with familial diabetes and GSD status, pregnancies, or contraceptive use. Only family history of GSD and socioeconomic status were significant risk factors in female patients (p < 0.05). High BMI, dyslipidemia and the raised socioeconomic status were associated with cholelithiasis in younger ages.

We found that 265(42.5%) patients had past history of jaundice. 64(10.3%) patients had pancreatitis past history. 337(54.1%) patients had Previous surgical/operative history. 194(31.1%) patients had LUCS and 12(1.9%) patients had Pancreatitis Recent History.

It was found that 623(100.0%) patients had dyspnea. 598(96.0%) patients had flatulence. 616(98.9%) patients had nausea. 606(97.3%) patients had pain abdomen. 600(96.3%) patients had anorexia. 385(61.8%) patients had vomiting. 64(10.3%) patients had lost weight. 38(6.1%) patients had jaundice. 389(62.4%) patients had food intolerance to fatty/spicy food. 56(9.0%) patients had palpable GB. 622(100.0%) patients had WNL in urine RE/ME. 622(100.0%) patients had WNL in urine for C/S

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Fairfield CJ et al ¹¹ (2019) found that the association was present in females and males. Three studies report the relationship between cholecystectomy and CVD with a pooled HR of 1.41 when cholecystectomy is excluded although confounding may influence this result.

Balakrishnan S et al ¹² (2008) found that the overall morbidity was 2.33% with 3 patients having residual common bile duct stones; 3 patients had biliary leak from cystic or accessory duct stumps and one had idiopathic right segmental liver atrophy; 19 had wound infections, 5 had port-site hernia.

Sathesh-Kumar et al ¹³ (2004) found that biliary cholesterol, stone cholesterol and blood cholesterol is significant (0.727 and 0.419 correlation is significant at the 0.01 level, p value < 0.001 significant) It is necessary to analyze the chemical composition of biliary stones in a group of patients, so as to make the case for introducing bile salt therapy.

Gupta G et al ¹⁴ (2018) found that Laparoscopic cholecystectomy was performed in (n=24, 80%) of cases while (n=6, 20%) cases underwent open cholecystectomy. Mixed stones were common with an incidence

of (n=20, 66.6%) while cholesterol stones and pigment stones had an equal incidence of 16.7% in the present study. No intraperitoneal drainage was done and there were no early or late complications in the present study. Laparoscopic cholecystectomy is a safe, economical and efficacious procedure. It does not have significant morbidity and there is no surgery related mortality.

Table : Distribution of Dyspepsia, Flatulence, Nausea, Pain Abdomen, Anorexia, Vomiting, Weight loss, Jaundice, Food Intolerance to fatty/spicy food (Yes/No), Palpable GB (Yes/No), Urine RE/ME, and Urine For C/S

		Frequency	Percent
Dyspepsia	Yes	623	100.0%
Flatulence	No	25	4.0%
	Yes	598	96.0%
Nausea	No	7	1.1%
	Yes	616	98.9%
Pain Abdomen	No	17	2.7%
	Yes	606	97.3%
Anorexia	No	23	3.7%
	Yes	600	96.3%
Vomiting	No	238	38.2%
	Yes	385	61.8%
Vomiting	No	439	70.5%
	Yes	184	29.5%
Weight loss	No	559	89.7%
	Yes	64	10.3%
Jaundice	No	585	93.9%
	Yes	38	6.1%
Food Intolerance to fatty/ spicy food	No	234	37.6%
	Yes	389	62.4%
Palpable GB	No	567	91.0%
	Yes	56	9.0%
Urine RE/ME	WNL	622	100.0%
Urine For C/S	WNL	622	100.0%

SUMMARY AND CONCLUSION

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