

ORIGINAL RESEARCH

Assessment Of Clinical Presentation And Management Of The Cholelithiasis

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Received: 22 December, 2022

Accepted: 26 January, 2022

ABSTRACT

Background: Cholelithiasis remains a common cause of surgical intervention, contributing substantially to health care costs. The present study was conducted to assess clinical presentation and management and outcomes of the cholelithiasis.

Materials & Methods: 84 adult patients of cholelithiasis of both genders were included. Parameters such as nature of the symptoms, hemogram, electrocardiogram, liver function test, blood sugar, blood urea, serum creatinine, urine analysis, blood group, chest X-ray, and ultrasound scan of the abdomen. All patients underwent open cholecystectomy

Results: Out of 84 patients, males were 32 and females were 52. Common clinical features were pain abdomen seen in 84, dyspepsia was present in 56 patients and nausea in 32. The difference was significant ($P < 0.05$). Number of stones was single in 14, double in 26 and multiple in 44. Type was cholesterol in 28, pigmented in 24 and mixed in 32. Shape was round in 24, irregular in 34 and facet shaped in 26. The difference was significant ($P < 0.05$).

Conclusion: Most common shape of stones was irregular and type was mixed. Common clinical features were pain abdomen, dyspepsia and nausea.

Key words: gallbladder, Stone, pain abdomen

INTRODUCTION

The gallbladder is a small organ located on the right side of the abdomen, just below the liver. The gallbladder's main function is to store bile (made by the liver) and secrete it into the small intestine to help digestion. Bile is made of water, cholesterol, fats, bile salts (natural detergents that break up fat) and a pigment called bilirubin. Gallstones are crystal-like masses that typically form in the gallbladder if the bile contains too much cholesterol, bile salts, or bilirubin or various disturbances in bile.¹

The most common biliary pathology gall stones, can be divided into three main types: cholesterol, pigment (black, brown) or mixed stones. Gall stones vary in size and could be as

large as a golf ball and may develop any number and size of stones.² They are more common in women and older persons, as well as overweight persons. In the United States, 20% of people over the age of 65 have gallstones, but most never experience symptoms. However, complications from gallstones can be serious if symptomatic stones are left untreated. Gallstones remain a serious health concern affecting millions throughout the world.³

Cholelithiasis remains a common cause of surgical intervention, contributing substantially to health care costs.⁴ The evaluation of the indication for cholecystectomy must include the risk of developing complications to gallstone disease, the risk of complications to surgery and, obviously, the expected effect on symptomatology. The cost for society must also be taken into consideration.⁵ The present study was conducted to assess clinical presentation and management and outcomes of the cholelithiasis.

MATERIALS & METHODS

The present study comprised of 84 adult patients of cholelithiasis of both genders. All gave their written consent for the participation in the study.

Data such as name, age, gender etc. was recorded. Parameters such as nature of the symptoms, duration of the symptoms, past history of similar complaints, diet history, history of OCP, alcoholingestion, and diabetes were recorded.

All patients underwent hemogram, electrocardiogram, liver function test, blood sugar, blood urea, serum creatinine, urine analysis, blood group, chest X-ray, and ultrasound scan of the abdomen. All patients underwent open cholecystectomy. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I: Distribution of patients

Total- 84		
Gender	Males	Females
Number	32	52

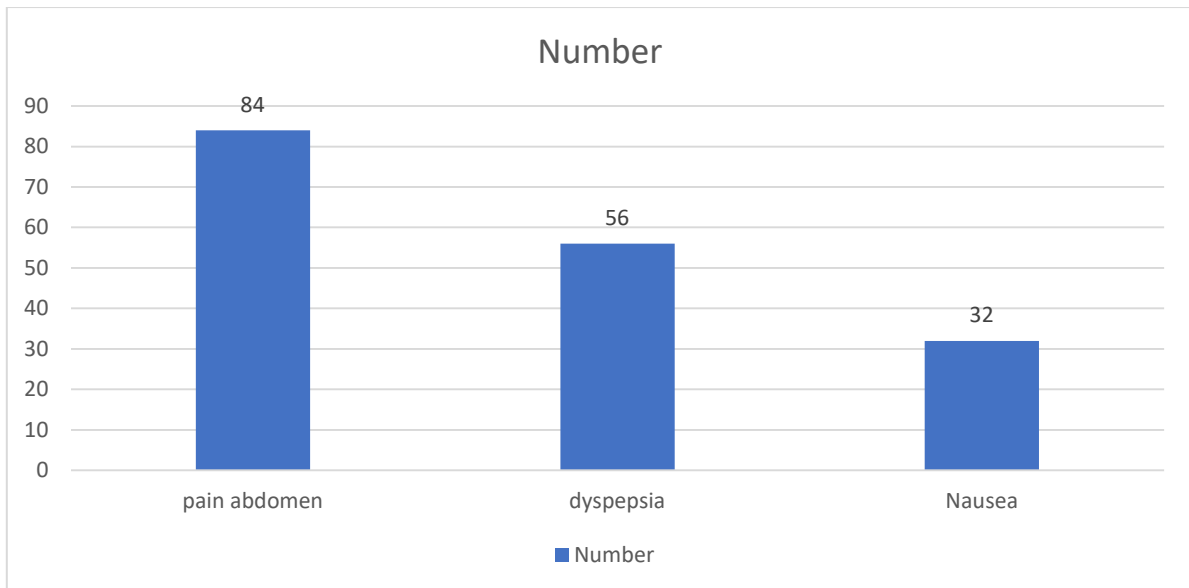
Table I shows that out of 84 patients, males were 32 and females were 52.

Table II: Clinical features

Clinical features	Number	P value
pain abdomen	84	0.05
dyspepsia	56	
Nausea	32	

Table II, graph I shows that common clinical features were pain abdomen seen in 84, dyspepsia was present in 56 patients and nausea in 32. The difference was significant (P< 0.05).

Graph I: Clinical features

**Table III: Assessment of parameters**

Parameters	Variables	Number	P value
Number	Single	14	0.01
	Double	26	
	Multiple	44	
Type	Cholesterol	28	0.17
	Pigmented	24	
	Mixed	32	
Shape	Rounded	24	0.21
	Irregular	34	
	Facet shaped	26	

Table III shows that number of stones was single in 14, double in 26 and multiple in 44. Type was cholesterol in 28, pigmented in 24 and mixed in 32. Shape was rounded in 24, irregular in 34 and facet shaped in 26. The difference was significant ($P < 0.05$).

DISCUSSION

In the USA and Europe, 80% gallstones are cholesterol or mixed stones, whereas in Asia, 80% of them are pigment stones. Cholesterol or mixed stones contain 51–99% cholesterol plus admixture of calcium salts, bile acids, bile pigment and phospholipids.⁶ Gallstones may be single or multiple, large or small. Those containing calcium salts are radio-opaque. Single stones are uncommon, but usually consist mainly of cholesterol and arise due to a disorder of the physio-chemical equilibrium in bile which normally maintains cholesterol in micellar form in bile.⁷

Important factors in the development of cholesterol stones are supersaturation of cholesterol in bile, nucleation and growth of crystals in the gallbladder and gallbladder dysmotility resulting in impaired emptying.⁸ The gallbladder stores and concentrates bile during fasting. After gastric emptying, especially after a fatty meal, mediated by the hormone cholecystokinin, the gallbladder contracts simultaneously with relaxation of the sphincter of Oddi, resulting in an expulsion of concentrated bile which mixes with food in the duodenum.⁹ Biliary colic is considered to be caused by the impaction of one or more stones in the neck of the gallbladder. The raised intraluminal pressure, contraction and distension of the gallbladder give rise to biliary pain.¹⁰ The present study was conducted to assess clinical presentation and management and outcomes of the cholelithiasis.

We found that out of 84 patients, males were 32 and females were 52. Sharada and Srinivas¹¹ found that highest age incidence of cholelithiasis was in the 5th decade with female predominance. Pain was present in 97.78% of the patients, Tenderness in the right hypochondrium was the most common sign present in 96.67%, guarding was the next sign present in 31.11% of the patients and mass abdomen in 7.78% of the patients. Ultrasonography is the investigation of choice in our hospital. All patients had gallstones, 24.44% of patients had solitary stone. 75.56% of patients had multiple stones, 14.44% of patients had bile duct stones, 80% had thickening of gallbladder, 12.22% had gall bladder intension, and 7.78% had gallbladder mass. About 48.88% of patients underwent laparoscopic cholecystectomy, 51.11% underwent open cholecystectomy. The post-operative complication in the present study was

13.33%. Wound infection was the most common. Gallstones analysis showed mixed stone in 90% of the cases and cholesterol stones in 7.78% of the cases as the most common variety.

We found that common clinical features were pain abdomen seen in 84, dyspepsia was present in 56 patients and nausea in 32. Bansal et al¹² showed that the mean age of the patients was 43.56 years with a male-female ratio of 0.52:1. Mixed type of diet and multiple gallbladder calculi of mixed type was observed. Wound infection was the commonest complication in open cholecystectomy group, and the mean hospital stay was significantly more in this group.

We found that number of stones was single in 14, double in 26 and multiple in 44. Type was cholesterol in 28, pigmented in 24 and mixed in 32. Shape was round in 24, irregular in 34 and facet shaped in 26. Bhamre et al¹³ analysed the clinical profile and management outcome of cholelithiasis in 52 cases. The results showed that Female to male ratio was 15:11. The most common presenting complaint was pain in abdomen in 49 (94.23%) patients. On clinical examination most common sign was tenderness in 48 (92.31%) patients. Abdominal ultrasonography showed gallstones in all cases. Either laparoscopic or open cholecystectomy was performed. Complications included wound infection, haemorrhage, and bile duct injury. On histopathological examination the most common finding was chronic cholecystitis seen in 39 (75.00%) cases.

The limitation of the study is small sample size.

CONCLUSION

Authors found that most common shape of stones was irregular and type was mixed. Common clinical features were pain abdomen, dyspepsia and nausea.

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