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Congenital Anomalies of A Gallbladder – A Single Surgeon Experience

[1]Dr. Sunidhi Badyal, Post Graduate, Dept. of General Surgery, ASCOMS & Hospital, Jammu.
[2]Dr. Rishab Gupta, Senior Resident, Dept. of General Surgery, AIIMS, Vijaypur, Jammu.
[3]Dr Samia Mohan, Assistant Professor, Dept. of General Surgery, ASCOMS & Hospital, Jammu.
[4]Dr. K.S Mehta, Professor and Head, Dept. of General Surgery, ASCOMS & Hospital, Jammu.
[5]Dr. Manvir Singh, Post Graduate, Dept. of General Surgery, ASCOMS & Hospital, Jammu.
[6]Dr. Aman Ved, Post Graduate, Dept. of General Surgery, ASCOMS & Hospital, Jammu.
Corresponding Author: Dr. Dhanav Mahajan, Post Graduate, Dept. of General Surgery, ASCOMS & Hospital, Jammu.

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Abstract

Introduction: The purpose of this study is to evaluate frequency of Anatomical variations and congenital anomalies of the gall bladder encountered during Laparoscopic Cholecystectomy by single surgeon.

Material and Method: This study was conducted on 200 patients of cholelithiasis at the department of surgery ASCOMS & Hospital, Jammu for a period of 1 year.

Results and Conclusion: In our study we found Septate Gall Baldder 1%, Diverticula of Gall Bladder 0.5% And Floating Gall Baldder 0.5%. Hence we concluded that Congenital anomalies of gall bladder are not common but can be of clinical importance and surprise if present. So every surgeon should assess for these anomalies during laparoscopic cholecystectomy.

Keywords: Laparoscopic Cholecystectomy, Septate Gall Baldder, Diverticula of Gall Bladder, Floating Gall Baldder, Acute Cholecystitis, Empyema of Gall Bladder, Pancreatitis, Obstructive Jaundice, Carcinoma of Gall Bladder

Introduction

The gallbladder is a pear-shaped, hollow structure located on the under surface of the right lobe of liver and concentrate and store bile produced by the liver. Congenital anomalies of the gallbladder are structural abnormalities present at birth that affect the gallbladder's shape, size, position, or the presence of additional structures. These anomalies are usually discovered incidentally during imaging studies or surgery for unrelated conditions. Congenital anomalies of the gallbladder are not common however they should never be forgotten. They are important to the surgeon because failure to recognize them may lead to inadvertent ductal ligation, biliary leaks and strictures after laparoscopic cholecystectomy. Congenital anomalies of gall bladder have long been recognized but are rare and may be of clinical importance because they may provide surgeons with an unusual surprise during laparoscopic cholecystectomy. These anomalies include Agenesis of Gall bladder, Hypogenesis of Gall bladder, Congenital

diverticulum, Phrygian cap, Floating or wandering Gall bladder. Several less common and more complicated anatomic variations can also be found like Left-sided Gall bladder & Intrahepatic Gall bladder. The purpose of this study is to evaluate the frequency of Anatomical variations and congenital anomalies of the gall bladder encountered during Laparoscopic Cholecystectomy by single surgeon.

Patients and Methods

This study was conducted on diagnosed 200 patients of cholelithiasis at the Department of Surgery ASCOMS & hospital, Jammu for a period of 1 year. Sampling strategy include all patients of cholelithiasis admitted for laparoscopic cholecystectomy. The patients with acute cholecystitis, empyema of gall bladder, pancreatitis, obstructive jaundice and carcinoma of gall bladder were excluded from study. Base line investigations along with ultrasound abdomen were done to evaluate the patients. All cases undergoing routine laparoscopic cholecystectomy by a single surgeon were assessed for anomalies of gall bladder.

The data were evaluated using SPSS 20. Mean ± standard deviation was presented for numerical parameters and categorical variables were expressed as n (%) on 95% confidence interval. No other statistical test was applied.

Observations and Results

Gender Distribution

Gender	**No. o**f Patients	Percentage
Male	84	42%
Female	116	58%
Total	200	100%

Age Distribution

Age (Years)	**No. o**f Patients	Percentage
Below 18	12	6%
18-25	35	17.5%
26-60	98	49%
60 And Above	55	27.5%
Total	200	100%

Presentation of Patient

Presentation	**No. o**f Patients	Percentage
Symptomatic	142	71%
Asymptomatic	58	29%
Total	200	100%

Gall Bladder Anomalies

	Type of Anamolies	**No. of Patients**	**Percentage**
	Septate Gall Bladder	2	1%
	Diverticula of Gall Bladder	1	0.5%
	Floating Gall Bladder	1	0.5%
Total		4	2%

Septate Gall Bladder

Figure 1

Figure 2

Floating Gall Bladder

Figure 3

Diverticula of Gall Bladder

Figure 4

Figure 5

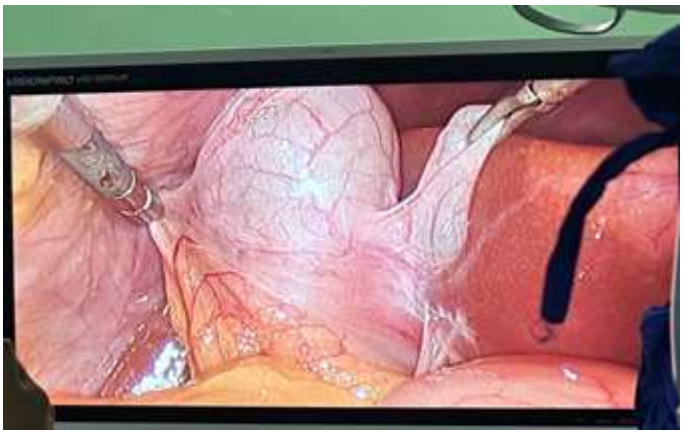

Figure 6

In our study we found that cholelithiasis is more common in female population i.e 58% of the total cases and is more common in age group between 20-60 years with mean age of presentation 34.5± 12 yrs .Majority of the patients were symptomatic i.e 71% with pain in either right hypopochondriac region or pain in epigastric region or pain in both region and few were asymptomatic i.e 29%, may be a incidental finding of ultrasonography. Congenital anomalies were seen in 4 patients i.e 2%of the total cases

Discussion

Congenital anomalies of the gallbladder are rare but can have significant implications for diagnosis and treatment. These anomalies include variations in size, shape, position, and number of the gallbladder. In this study, such anomalies were detected in 2% of the total cases performed by single surgeon.

Detecting these anomalies preoperatively can be challenging. Specialized radiological imaging techniques such as magnetic resonance cholangiopancreatography (MRCP) or endoscopic retrograde cholangiopancreatography (ERCP) are often required for accurate diagnosis.

Understanding the presence of congenital anomalies is crucial during surgical procedures like cholecystectomy

to avoid complications such as bile duct injury or incomplete removal of the gallbladder.

Conclusion

Although congenital anomalies are rare occurrences, they can carry significant clinical implications and unexpected challenges if encountered. Therefore, it is imperative for surgeons to carefully evaluate for these anomalies during laparoscopic cholecystectomy to prevent inadvertent ductal clipping, injuries, strictures, and bleeding complications. Being aware of these anomalies can ultimately reduce morbidity, the need for conversion to open surgery, and the likelihood of requiring re-exploration in affected patients.

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