



## A STUDY ON INCIDENCE OF COMMON BILE DUCT STONE IN JLNMCH, BHAGALPUR

### General Surgery

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### ABSTRACT

**Aim:** Common bile duct stones are found in 10-15% of patients having gall stone disease. Common bile duct stone disease is more common in our region. This study was done to see the incidence of CBD stones in our hospital.

**Methods:** This study was done for a period of one year from January 2016 to December 2016 in patients who were admitted for common bile duct stone disease in surgery department of JLNMCH, Bhagalpur. Thorough examination, investigations and surgeries were performed.

**Results:** CBD stones were more common in females than males with a ratio of 2.5:1. Average age group presented with the disease was 30 years. In 20 % of the gall stone disease, CBD stones were associated. It was common in obese individuals than normal weight. Common in low socioeconomic group people. Conclusion- The incidence is increasing with time and females are the commonest sufferers.

### KEYWORDS:

Common bile duct, Stone, Gall stones, Obesity

### Introduction-

Common bile duct stones may be small or large and single or multiple, and are found in 6% to 12% of patients with stones in the gallbladder. The incidence increases with age. About 20% to 25% of patients above the age of 60 with symptomatic gallstones have stones in the common bile duct as well as in the gallbladder. The vast majority of ductal stones in Western countries are formed within the gallbladder and migrate down the cystic duct to the common bile duct. These are classified as secondary common bile duct stones, in contrast to the primary stones that form in the bile ducts. The secondary stones are usually cholesterol stones, whereas the primary stones are usually of the brown pigment type. The primary stones are associated with biliary stasis and infection and are more commonly seen in Asian populations. The causes of biliary stasis that lead to the development of primary stones include biliary stricture, papillary stenosis, tumors, or other (secondary) stones. Choledochal stones may be silent and often are discovered incidentally. They may cause obstruction, complete or incomplete, or they may manifest with cholangitis or gallstone pancreatitis. The pain caused by a stone in the bile duct is very similar to that of biliary colic caused by impaction of a stone in the cystic duct. Nausea and vomiting are common. Physical examination may be normal, but mild epigastric or right upper quadrant tenderness as well as mild icterus are common. The symptoms may also be intermittent, such as pain and transient jaundice caused by a stone that temporarily impacts the ampulla but subsequently moves away, acting as a ball valve. A small stone may pass through the ampulla spontaneously with resolution of symptoms. Finally, the stones may become completely impacted, causing severe progressive jaundice. Elevation of serum bilirubin, alkaline phosphatase, and transaminases are commonly seen in patients with bile duct stones. However, in about one third of patients with common bile duct stones, the liver chemistries are normal. Endoscopic cholangiography is the gold standard for diagnosing common bile duct stones. It has the distinct advantage of providing a therapeutic option at the time of diagnosis. For patients with symptomatic gallstones and suspected common bile duct stones, either preoperative endoscopic cholangiography or an intraoperative cholangiogram will document the bile duct stones. If an endoscopic cholangiogram reveals stones, sphincterotomy and ductal clearance of the stones is appropriate, followed by a laparoscopic cholecystectomy. An intraoperative cholangiogram at the time of cholecystectomy will also document the presence or absence of bile duct stones. Laparoscopic common bile duct exploration via the cystic duct or with formal choledochotomy allows the stones to be retrieved in the same setting (see Choledochal Exploration section). If the expertise and/or the instrumentation for laparoscopic common bile duct exploration are not available, a drain should be left adjacent to the cystic duct and the patient scheduled for endoscopic sphincterotomy the following day. An open common bile duct exploration is an option if the endoscopic method has already been tried or is, for some reason, not feasible. If a

choledochotomy is performed, a T tube is left in place. Stones impacted in the ampulla may be difficult for both endoscopic ductal clearance as well as common bile duct exploration (open or laparoscopic). In these cases the common bile duct is usually quite dilated (about 2 cm in diameter). A choledochoduodenostomy or a Roux-en-Y choledochojunostomy may be the best option under this circumstance.

### Material and Methods

This study was done for a period of one year from January 2016 to December 2016 in patients who were admitted for common bile duct stone disease in surgery department of JLNMCH, Bhagalpur. Thorough examination, investigations and surgeries were performed. Inclusion Criteria- All patients (of all ages and sex) admitted in surgery department of JLNMCH, Bhagalpur who have been diagnosed to have Common bile duct stone.

Exclusion Criteria -All Abdominal conditions having similar clinical features other than Common bile duct stone, Patients who refused to take part in the study and patients with neoplastic conditions of kidney. The data collected in a specially designed Proforma were processed and subjected to relevant statistical analysis.

### Results

Total patients having Common bile duct stone and admitted in the hospital from 1<sup>st</sup> from January 2016 to December 2016 were 60 in number. It was seen that the disease was more common in the age group between 30 to 35 years. The average age group was 30 years. It occurred in both men and women, with women being more than men. CBD stones were more common in females than males with a ratio of 2.5:1. In 20 % of the gall stone disease, CBD stones were associated. It was common in obese individuals than normal weight. Common in low socioeconomic group people. Maximum stones were of brown pigment type. Largest was of 2 cms. Most common complaint was pain in right hypochondrium and jaundice. CT Scan was the diagnostic tool used.

### DISCUSSION:

Choledocholithiasis, or stones in the common bile duct, can be classified as primary, forming initially in the bile ducts, or secondary, originating in the gallbladder and passing into the bile ducts. In Western countries, bile duct stones are most commonly secondary, and bile duct stones are found in 8% to 18% of patients with symptomatic gallstones. Co-existent gallbladder and common duct stones are correlated with increasing age, Asian descent, chronic inflammatory conditions (primary sclerosing cholangitis, acquired immunodeficiency syndrome, parasites), and possibly hypothyroidism. Primary bile duct stones can also form, but their incidence in Western countries is low. Primary bile duct stones tend to

be higher in bilirubin content, and lower in cholesterol content, than secondary stones. The pathogenesis of primary bile duct stones likely differs from that of secondary bile duct stones. Previous studies have implicated bacterial infection and biliary stasis as important factors in formation of primary duct stones. Bacteria have been found in mixed pigment stones, and bile infection appears to precede stone formation. Parasitic infection has also been associated with primary duct stones, primarily in Asia. Common bile duct stones are found in 10-15% of patients having cholelithiasis. In present study it's incidence is 20 %. Obesity, Female, nutritional factors etc are other risk factors associated with choledocholithiasis. In our study also majority of patients are obese, fertile, females from low socioeconomic class.

### Conclusion

CBD stones are associated with about 10-16% of the patients undergoing cholecystectomy. The incidence is increasing with time and females are the commonest sufferers.

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