



Diagnosis and management of postcholecystectomy syndrome

Authors

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Introduction

Postcholecystectomy syndrome, after removal of gall bladder, usually manifested by the presence of abdominal symptoms. The symptoms occurs within months in majority of patient and months to year in few patient in upto 15% of patients, postcholecystectomy syndrome is seen. The most frequent symptoms are pain abdomen jaundice or dyspepsia but few patients may have nonspecific syndrome. These patients are initially assessed by transabdominal ultrasound (TUS) or computed tomography, endoscopy followed by endoscopic retrograde cholangio-pancreatography (ERCP).

Material and Methods

We included 50 patients with postcholecystectomy symptoms admitted during a period 24 months in NMCh, Patna.

Observation

Among 50 patients-15male and 35 female and average age was 46 years. All symptomatic after cholecystectomy were investigated.

Cholecystectomy had been performed in all the patients with the addition of common bile duct exploration in 8 cases.

Table – 1

Cholecystectomy alone	42 cases
Additional CBD exploration	8 cases

Patients referred to our department with post cholecystectomy syndrome had usually already undergone some investigation:

Diagnosis: The interval from cholecystectomy ranged from 1 to 60 months the liver function analysed were serum bilirubin and serum alkaline phosphatase. A diameter of the common bile duct (CBD) of less than 10mm was considered normal and greater than or equal to 10 mm was considered abnormal. Direct evidence of a stone in biliary duct was considered as a true positive result.

Trans abdominal ultrasound (TUS) was thantial imaging test, the diameter of the CBD and presence at calculi in biliary tract noted. Endoscopic ultrasonography is an accurate technique to determined the presence of stone in CBD, at the same time it can diagnose and stage both pancreatic and peri ampullary cancer.

Computed tomography: it allows visualization of the liver, bile ducts, pancreas and malignancy of biliary tract. It also gives informations about metastatic disease or enlarge lymph node.

Magnetic resonance cholangio pancreatography (MRCP)– it is a non-invasive technique, images the gall bladder and biliary system.

Endoscopic retrograde cholangio pancreatography (ERCP)– it was used as both a diagnostic and

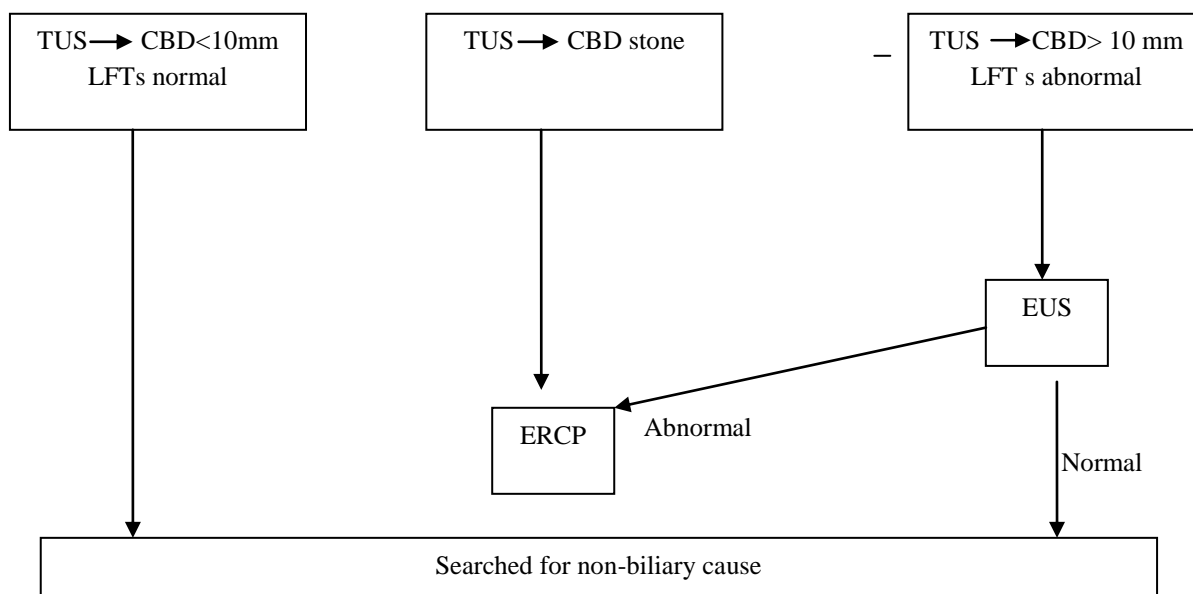
therapeutic modality, provide excellent images of auctal anatomoy.

Radioisotope scanning– technetium-99m allows visualization of the biliary tree and gall bladder. When there is a suspicion of a bile leak following cholecystectomy radioisotope imaging becomes first choice.

Table – II Diagnosis and examinations performed in patients with post cholecystectome syndrome

Final diagnosis	No of cases
Common bile ductstones	10
Bile duct stricture	02
Chronic Pancreatitis	04
Cystic duct remnant	01
Enlarged lymph nodes	01
Sphincter of oddi dysfunction	02
Non biliary symptom (Peptic ulcer disease, esophagitis, Hiatus Hernia, Diverticular disease, Functional Bowel disease etc.)	30

Algorithm used for diagnosis of post cholecystecto my syndrome



Management– among the biliary cause of post cholecystectomy syndrome, common bile stone outnumbered the other cause. For CBD stone – ERCP tried first, stone removed in 6 cases. Laparoscopic removal done in one case. Choledocholithotomy done in rest three cases. Bile duct stricture – endoscopic stenting done in one case and Hepticojejunostomy in one case. Chronic pancreatitis – most patients were managed conservatively except in one case pancreatiojejunostomy done. Sphincter of oddi dys function – sphincterotomy and stenting done by ERCP.

Discussion

postcholecystectomy syndrome is seen in upto 10 to 15 percent patients. Analysis of serum bairubin and alkaline phosphatase was the most useful liver function test. Serum alkaline phosphatase was

elevated in front of biliary cases but it has below accuracy. Transabdominal ultra sonography, a non invasive and easily available is the first imaging procedure use for the initial evaluation of patients with postcholecystectomy problems. It is a rapid method, being capable of differentiating between non- obstructive and obstructive jaundice. Improvement in US device has made diagnosis easier but the distal part of CBD, the papillary region and the retroperitoneal pathology are difficult to examine by TUS. However, an abrupt change in the caliber of the bile duct from dilated to normal is suggestive of malignant obstruction. The EUS of the pancreatico-biliary system made visualization of extra hepatic and the head of pancreas easier. Small CBD stones can be observed with greater accuracy slightly better than ERCP. The EUS has minimal risk of inducing

acute pancreatitis and there is no radiation exposure.

ERCP is most accurate test whenever it is technically successful, it allows tissue diagnosis and therapeutic interventions. Acute pancreatitis is the most common complication. It should only be performed when an indication for endoscopic treatment is shown by other tools. Flexible endoscopy is the best investigation for the upper gastro intestinal tract it helps in diagnosing not biliary cause of postcholecystectomy symptom.

As far as treatment is concerned, non-biliary cause needs medical treatment. In our series, 10 cases had biliary duct stone, seven of them was treated by ERCP successfully. One case of CBD stone removed by laparoscopically in which cannulation of ampulla of Vater failed by ERCP. Only two cases which had open cholecystectomy previously gone for open choledochomy due to dense adhesions. For bile duct stricture Hepatico-Jejunostomy done in both cases. Chronic pancreatitis dealt conservatively. Sphincter of Oddi dysfunction treated by ERCP sphincterotomy.

Conclusion

After cholecystectomy few patients complain of continuing symptom. Non-biliary cause like peptic ulcer disease, functional bowel disease, diverticular disease must be investigated as it is major contributor of postcholecystectomy symptom. Patients presenting with upper quadrant pain, chills fever or jaundice suggests biliary tract disease, that needs EUS. Whenever EUS is available, it should be first imaging tool for biliary cases. However, in the patients with persistent symptoms and in whom all investigations have not yielded a definite diagnosis, ERCP is clearly indicated. Functional disorder affecting the coordination motility of bile duct and sphincter of Oddi-biliary dyskinesia is a cause of persistent symptom after cholecystectomy. It is commonly seen in females. In patients in whom the presenting features are vague abdominal pain may suffer

from a disorder of gastro-intestinal motility associated with duodenogastric reflux.

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