



## Postcholecystectomy Syndrome: A Short Communication

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Cholecystectomy is a surgical treatment that involves removing the gallbladder. When the gallbladder functions abnormally due to disease, it sometimes develops into a blockage in the biliary tract, creating a complete or partial obstruction. This condition is treated with cholecystectomy. Sometimes the recurrence of similar symptoms is observed after performing cholecystectomy. The patient has a range of symptoms seen before cholecystectomy and is related to a specific disease or condition. This group of recurrent symptoms is known as the post-cholecystectomy syndrome, of which recurrent abdominal pain is the most common. There are different diagnostic tools to determine the cause, of which endoscopic retrograde cholangiopancreatography is the most useful and effective diagnostic tool. A combination of medications and surgery is done to treat the disease depending on the symptoms and the cause [1]. Postcholecystectomy syndrome is defined as a recurrence of symptoms similar to those experienced before cholecystectomy. This usually takes the form of upper abdominal pain (mainly in the right upper quadrant) and dyspepsia, with or without jaundice [2]. Postcholecystectomy syndrome was first described by Womack and Crider in 1947 as "the presence of symptoms after cholecystectomy" [3].

Common causes of post-cholecystectomy syndrome are diseases of the biliary tract, gallbladder, liver, etc. Biliary disorders and bowel conditions such as: 1) Pancreatitis-Inflammation of the pancreas, 2) Pancreatic cancer, 3) Hepatitis-Inflammation of the liver, 4) Peptic ulcer-Formation of sores on the lining or wall of the abdomen, 5) Mesenteric ischemia-Blockage of the artery that supplies blood to the intestines, 6) Diverticulitis-The formation of a bulge in the digestive tract, 7) Intercostal neuralgia-Nerve pain affecting the chest, the area below the ribs, or the upper abdomen and 8) Neuroma-A ball-shaped lesion caused by a nerve that occurs during the healing process [4].

Severe symptoms are more likely to be complications of cholecystectomy if they occur early or represent treatable causes compared with mild or nonspecific symptoms. However, if no gallstones or gallbladder abnormalities are detected during cholecystectomy while presenting with symptoms similar to preoperatively, non-biliary etiology should be considered [3]. The most common cause of post-cholecystectomy syndrome is an unrecognized exocrine disorder such as reflux esophagitis, peptic ulcer disease, irritable bowel syndrome, or chronic pancreatitis. Causes biliary tract including diarrhea or gastric

abscess due to salt, gallstones, bile leakage, biliary stricture, long vestibule of cystic duct, narrowing and dyskinesia of the sphincter of Oddi. Major causes other than the reported biliary tract includes gastrointestinal causes such as acute/chronic pancreatitis (and its complications), pancreatic tumor, biliary pancreatitis, hepatitis, esophageal disease, peptic ulcer, mesenteric ischemia, diverticulitis, and organic or motility bowel disorders. It also includes extra-intestinal causes such as psychiatric and neurological disorders, coronary artery disease, intercostal neuritis, wound neuroma, and pain syndromes of unknown origin.

Imaging methods for post-cholecystectomy syndrome include ultrasound, Computed Tomography (CT), Endoscopic Retrograde Cholangiopancreatography (ERCP), and Magnetic Resonance Cholangiopancreatography (MRCP) [5].

Postcholecystectomy syndrome can be diagnosed by: 1) Patient history: It is essential to review the medical history, previous treatments, diagnosis, etc. Carefully determine the cause of the syndrome. 2) Laboratory testing: A complete blood count should be performed to determine the presence of infection. Complete metabolic panel, prothrombin time, amylase. This will help identify disease related to the liver or pancreas. Blood gas testing or analysis will help check for toxicity. Other tests that may be helpful in determining the causes are hepatitis panel, thyroid function, gamma-glutamyl transpeptidase, etc. 3) Image inspection: The following checks should be performed: a) A chest X-ray will be helpful in assessing the condition of the lungs. b) Abdominal ultrasound is recommended to examine the abdominal organs. c) A CT scan will identify the presence of abnormalities that have developed as a complication of pancreatitis, such as pseudocysts. Hepatobiliary iminodiacetic acid scan may show bile leak and sphincter of Oddi dysfunction. d) Esophagogastroduodenoscopy can help the physician visualize the ampulla of Vater directly. This type of endoscopy also examines the esophagus, stomach, and duodenum to check for any abnormalities or blockages. e) Endoscopic retrograde cholangiopancreatography is the most effective and useful diagnostic tool. He identified the rest of the stones. f) Magnetic resonance cholangiography or percutaneous transhepatic cholangiography is recommended for those unable to perform endoscopic retrograde cholangiopancreatography [1].

Postcholecystectomy Syndrome can be treated by administering medicines such as Bulking Agents, Antispasmodics, Sedatives, Cholestyramine, Antacids and Histamine-2 Blockers and Proton Pump Inhibitors. Surgical treatment is suggested when the specific cause of the post-cholecystectomy syndrome is diagnosed. It includes the following methods: exploratory surgery, sphincterotomy, sphincterotomy, biliary stenting, biliary drainage [1].

## References

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