

(Symptoms After Gallbladder Surgery)

By *Robert Wascher*



An estimated 20 million Americans have gallstones (cholelithiasis), and about 30 percent of these patients will ultimately develop symptoms of their gallstone disease. The most common symptoms specifically related to gallstone disease include upper abdominal pain (often, but not always, following a heavy or greasy meal), nausea, and vomiting. (The upper abdominal pain often radiates around towards the right side of the back or shoulder.)

Patients with complications of untreated cholelithiasis may experience other symptoms as well, in addition to an increased risk of severe illness, or even death. These complications of gallstone disease include:

- Severe inflammation or infection of the gallbladder (cholecystitis)
- Blockage of the main bile duct with gallstones (choledocholithiasis), which can cause jaundice or/and bile duct infection (cholangitis), as well as pancreatitis

More than 500,000 patients undergo removal of their gallstones and gallbladders every year in the United States, making cholecystectomy one of the most commonly performed major abdominal surgical operations. In 85 to 90 percent of cholecystectomies, the operation can be performed laparoscopically, using multiple small "band-aid" incisions instead of the traditional large (and more painful) upper abdominal incision.

For the vast majority of patients with cholelithiasis, cholecystectomy effectively relieves the symptoms of gallstones. In 10 to 15 percent of patients undergoing cholecystectomy, however, persistent or new abdominal or GI symptoms may arise after gallbladder surgery. Although there are many individual causes of chronic post-cholecystectomy abdominal or GI symptoms, the presence of such symptoms following gallbladder surgery are collectively referred to as "post-cholecystectomy" syndrome (PCS) by many experts.

I routinely receive inquiries from patients who have previously undergone cholecystectomy, and who report troubling abdominal or GI symptoms following their surgery. In many cases, these patients have already undergone rather extensive evaluations, but without any specific findings. Understandably, such patients are troubled and frustrated, both by their chronic symptoms and the ongoing uncertainty as to the cause (or causes) of these symptoms.

The most common symptoms attributed to PCS include chronic abdominal pain, nausea, vomiting, bloating, excessive intestinal gas, and diarrhea. Fever and jaundice, which most commonly arise from complications of

gallbladder surgery, are much less common, fortunately. While the precise cause, or causes, of PCS symptoms can eventually be identified in about 90 percent of patients following a thorough evaluation, even the most comprehensive work-up can fail to identify a specific ailment as the cause of symptoms in some patients. It is important to stress that there is no universal consensus on the topic of PCS among the experts, although most agree that there are multiple and diverse causes of chronic post-cholecystectomy symptoms. Thus, it can be very difficult to counsel the small minority of patients with chronic symptoms after surgery when a comprehensive work-up fails to identify specific causes for their suffering.

Because PCS is, in effect, a non-specific clinical diagnosis assigned to patients with chronic symptoms following cholecystectomy, it is critically important that an appropriate work-up be performed in all cases of chronic PCS, so that an accurate diagnosis can be identified, and appropriate treatment can be initiated. As the known causes of PCS are numerous, however, physicians caring for such patients need to tailor their evaluations of patients with PCS based upon clinical findings, as well as prudent laboratory, ultrasound, and radiographic screening exams. This logical clinical approach to the assessment of PCS symptoms will identify or eliminate the most common diagnoses associated with PCS in the majority of such patients, sparing them the need for further unnecessary and invasive testing.

In reviewing the etiologies of PCS that have been described so far, both patients and physicians can gain a better understanding of how complex this clinical problem is:

- Irritable bowel syndrome (IBS)
- Bile gastritis (inflammation of the stomach)
- Gastroesophageal reflux (GERD)
- Hypersensitivity of the nervous system of the GI tract
- Abnormal flow of bile into the GI tract after removal of the gallbladder
- Excessive consumption of fatty and greasy foods
- Painful surgical scars or incisional (scar) hernias
- Adhesions (internal scars) following surgery
- Retained gallstones within the bile ducts or pancreatic duct
- Stricture (narrowing) of the bile ducts
- Bile leaks following surgery
- Injury to bile ducts during surgery
- Infection of the bile ducts (cholangitis), incisions, or abdomen
- Residual gallbladder or cystic duct remnant following surgery
- Fatty changes of the liver or other liver diseases
- Chronic pancreatitis or pancreatic insufficiency
- Abnormal function or anatomy of the main bile duct sphincter muscle (the "Sphincter of Oddi")

- Peptic ulcer disease
- Diverticulitis
- Crohn's disease or ulcerative colitis
- Stress
- Psychiatric illnesses
- Tumors of the liver, bile ducts, pancreas, stomach, small intestine, colon, or rectum

In reviewing the extensive list of potential causes of PCS, it is evident that some causes of PCS are directly attributable to cholecystectomy, while many other etiologies are due to unrelated conditions that arise either prior to surgery or after surgery.

While it is impossible to predict which patients will go on to develop PCS following cholecystectomy, there are some factors that are known to increase the risk of PCS following surgery. These factors include cholecystectomy performed for causes other than confirmed gallstone disease, cholecystectomy performed on an urgent or emergent basis, patients with a long history of gallstone symptoms prior to undergoing surgery, patients with a prior history of irritable bowel syndrome or other chronic intestinal disorders, and patients with a history of certain psychiatric illnesses.

In my own practice, the initial assessment of patients with PCS must, of course, begin with a thorough and accurate history and physical examination of the patient. If this initial assessment is concerning for one of the many known physical causes of PCS, then I will usually ask the patient undergo several preliminary screening tests, which typically include blood tests to assess liver and pancreas function, a complete blood count, and an abdominal ultrasound. Based upon the results of these initial screening tests, some patients may then be advised to undergo additional and more sophisticated tests, including endoscopic ultrasound (EUS), upper or/and lower GI endoscopy (including, in some cases, ERCP, or endoscopic retrograde cholangiopancreatography), bile duct manometry, or CT or MRI scans, for example. (The decision to order any of these more invasive and more costly tests must, of course, be dictated by each individual patient's clinical scenario.)

Fortunately, as I indicated at the beginning of this column, a thoughtful and logical approach to each individual patient's presentation will lead to a specific diagnosis in more than 90 percent of all cases of PCS. Therefore, if you (or someone you know) are experiencing symptoms consistent with PCS, then referral to a physician with expertise in evaluating and treating the various causes of PCS is essential (such physicians can include family physicians, internists, GI specialists, and surgeons). Once a specific cause for your PCS symptoms is identified, then an appropriate treatment plan can be initiated.

Disclaimer: As always, my advice to readers is to seek the advice of your physician before making any significant changes in medications, diet, or level of physical activity.

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