

"Nervousness" is a symptom which may be part of organic disease, or it may constitute the subjective and objective manifestations of functional problems. By necessity, only the latter concepts were touched upon during this discussion. "Nervousness" is not imaginary, as many believe, nor volitional, but a disturbance in re-activity, whether it be overt or implicit. Probably all such symptoms are mediated at subconscious levels and may or may not present physiologic changes of the nervous system, particularly the sympathetic.

Psychiatry is dynamic, consequently the approach to any psychiatric disorder cannot be concerned merely with an analysis of that particular isolated phase in the patient's life. To gain full understanding, longitudinal study must be carried out. Psychiatry is no longer in the realm of the mystic or supernatural.

## **PAIN AND FEVER ARISING FROM THE COMMON BILE DUCT AND NOT ASSOCIATED WITH JAUNDICE**

*Report of 2 Cases of Choledocholithiasis Treated by Choledochostomy  
and 1 of Post-Cholecystectomy Biliary Dyskinesia  
Relieved by Vagotomy.*

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When biliary colic, chills, or fever persist in a patient who has had a cholecystectomy for gall stones, the presence of a calculus in the common bile duct is often suspected. Yet, in the absence of stones in the gall bladder, it is only rarely that stones in the common duct produce these symptoms without causing sufficient obstruction to result in jaundice.

It is the purpose of this article to call attention to the fact that stones in the common duct may produce pain or fever without jaundice and to report 2 illustrative cases. A case of postoperative biliary dyskinesia relieved by vagotomy is also reported.

### **Case Reports**

**Case 1.** Chills and fever without jaundice caused by a stone in the common duct. A 62-year-old white woman was admitted to the hospital complaining of chills and fever of 105° which had occurred approximately once a week for eighteen months.

The attacks were accompanied by vomiting and vague upper abdominal distress, at times radiating to the back.

The only pertinent disclosure in her previous history was a cholecystectomy done sixteen years before for cholelithiasis. This patient had undergone extensive examination at another hospital, and a tentative diagnosis of undulant fever had been suggested. Undulant fever skin test and agglutination at Cleveland Clinic Hospital were negative, as were smears for malaria. Blood cultures, gastrointestinal x-rays, intravenous urogram, cystoscopy, and retrograde pyelogram were all negative. Icteric index was 7. There was no history of jaundice, and no jaundice followed the chills and fever observed during the patient's stay in the hospital (fig. 1).

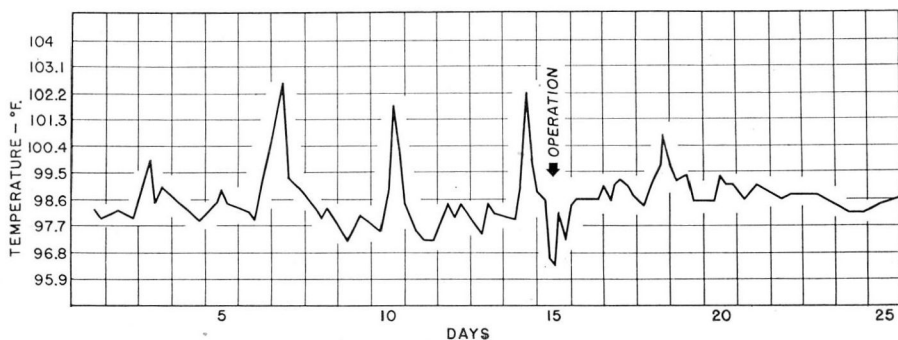


FIG. 1. Case 1. Temperature chart. Chills and fever without jaundice due to stone in common duct.



FIG. 2. Case 1. Stone removed from common duct.

On the basis of a palpable enlargement of the liver and a history of cholecystectomy for gall stones, the possibility of a common duct stone was considered and operation advised. At operation, the common bile duct was found to be enormously dilated to a diameter of  $1\frac{1}{2}$  inches. It contained a single round stone the size of a large olive (fig. 2). There was complete relief of symptoms following choledochotomy and removal of the stone.

**Case 2. Biliary colic without jaundice caused by multiple stones in common duct.** A 69-year-old white woman was admitted to the hospital with the chief complaint

of abdominal pain. She gave a history of cholecystostomy with removal of stones from the gall bladder nine years before. She had experienced mild abdominal pain several times since. Two months before admission she had suffered colicky pain in the epigastrium and right upper quadrant with radiation to both sides and to the angle of the right scapula.

These attacks were accompanied by bloating and belching and occurred almost daily fifteen to twenty minutes after meals. They were aggravated or precipitated by ingestion of greasy or fried foods and were relieved by induced vomiting. The patient had had no chills, fever, or jaundice, and no light stools.

Physical examination revealed no icterus. There was mild guarding in the right upper quadrant and enlargement of the liver two fingers' breadth below the costal margin. The pertinent laboratory findings were: icteric index 10, cephalin cholesterol flocculation plus minus, bromsulphalein retention 32 per cent after thirty minutes, and prothrombin time fifteen seconds. A surgical consultation was requested, and on the basis of the enlarged liver, colicky pain, and history of cholecystostomy for stones, operation was advised.

At operation the gall bladder contained no stones. There were seven faceted stones about 1 cm. in diameter in the common bile duct. Again there was complete relief of symptoms following choledochotomy and removal of stones.

**Case 3. Post-cholecystectomy biliary dyskinesia relieved by subdiaphragmatic vagotomy.** A 45-year-old white man was seen at Cleveland Clinic complaining of "pain in the liver." He had had a cholecystostomy for stones eighteen years previously, and a cholecystectomy thirteen years before. Since the last operation he had had a great deal of pain in the right upper quadrant, radiating around the costal margin and to the back. The pain was often nocturnal, having no relation to meals. Baking soda sometimes gave temporary relief. He had had no chills, fever, or jaundice. The patient's symptoms were so severe that he was well only about one week out of four and was unable to work.

The only positive laboratory findings were deformity of the duodenal bulb and spastic colon. He was placed on ulcer and bowel management. For the next four years he was seen at regular intervals. His symptoms continued, and at no time was he completely relieved by medical management. No ulcer crater was demonstrated, although the deformity of the duodenal bulb was seen repeatedly. Finally, due to the continuation of symptoms, he was referred for surgical opinion, and operation was advised. Two possibilities were considered—peptic ulcer and stone in the common duct.

At operation no ulcer was found, and there was no scar suggesting a healed ulcer. The common bile duct was not dilated, and no stones could be palpated. It was found that adhesions from previous operations caused the duodenal deformity. A subdiaphragmatic vagotomy was performed in the hope of relieving the biliary dyskinesia. It is now five months since operation, and the patient has had complete relief.

### Review of Literature and Analysis of Cases

A review of 50 recent cases of choledocholithiasis proved at operation at Cleveland Clinic reveals no patient who, in the absence of stones in the gall bladder and in the absence of jaundice, had experienced chills, fever, or colic from stones in the common bile duct.

In these 50 cases there were 5 with stones in the common duct without jaundice, but these all had an associated cholelithiasis. A tabulation of symptomatology in these cases of choledocholithiasis is included.

Leading symptomatology in 50 cases of choledocholithiasis:

Biliary colic.....	92%
Jaundice .....	90%
Vomiting.....	46%
Chills and fever .....	40%

In our cases of choledocholithiasis not associated with stones in the gall bladder there was a slightly higher rate (10 per cent) than is usually reported. Reports from Mayo Clinic show 6.4 per cent, Lahey states that 4 per cent have common duct stones without cholelithiasis, and Cole agrees that the incidence is less than 5 per cent.

The incidence of choledocholithiasis without jaundice is given as 34 per cent, 15 per cent, and 39 per cent by Allen, Kerr, and Lahey, respectively. Although it is not uncommon for stones to be present in the common duct and give no symptoms, it is unusual for stones that do not cause sufficient obstruction to produce jaundice to give any symptoms. We have found only 1 report of a similar case, reported by O'Shea in a review of 2602 cases.

The number of patients who have had gall bladder surgery but continue to have biliary disease is startling. In a review of 485 cases Carter and Maraffino found that 193 had recurrent symptoms, 16 per cent of whom required further surgery. Trueman reviewed the cases in which operations for biliary disease had been performed at Mayo Clinic and found that 29.6 per cent had had previous biliary surgery. The occurrence of distress postoperatively has been variously attributed to retained calculi, re-formation of stones, expulsion of stones through the biliary tract, pancreatitis, sphincteritis, hepatitis, stricture of the papilla of Vater by injury from a stone, and spasm of the sphincter of Oddi, or biliary dyskinesia.

Whatever its cause, if postoperative pain occurs without jaundice, many surgeons hesitate to advise further surgery. They are inclined to consider the manifestation as functional or to attribute it to dyskinesia rather than to the presence of a stone in the common duct. Lahey has said that one of the most difficult decisions to make is to determine whether or not operation should be performed on an unjaundiced patient who has had a cholecystectomy for stones but still has pain. Too often surgeons have opened the common duct for just such symptoms and found nothing to explain them. Walters, on the other hand, emphasizes the fact that a stone in the common duct should be suspected in the presence of abdominal pain, nausea, and vomiting, even in the absence of chills, fever, and jaundice. Graham and Mackey have rightly emphasized the fact that if stones were not found in the gall bladder at the

first operation there was a greater chance of persistence of symptoms postoperatively without organic basis.

### Discussion

It is conceded that exploratory operations after cholecystectomy performed for biliary colic without jaundice are unsatisfactory and that, in most cases, no gross abnormality is found. In such cases the surgeon is forced to content himself with draining the common duct. However, the 3 cases reported are examples of the positive results which render operation advisable in certain cases.

The first 2 cases are unusual, not because large or numerous stones occurred in the common bile duct without causing jaundice, but rather because in the absence of stones in the gall bladder, the common duct stone caused chills and fever in the first case, and in the second severe colic unaccompanied by jaundice. If there had been stones in the gall bladder to which the symptoms could have been attributed, the absence of jaundice would not have been noteworthy, since approximately 25 per cent of all common duct stones occur in patients who give no history of jaundice. In the majority of cases in which there are common duct stones without jaundice, however, it is probable that the pain is caused by the stones in the gall bladder rather than by the stones in the common duct. Colic or fever secondary to stones in the common duct is usually accompanied by sufficient obstruction to cause jaundice.

These 2 cases represent the only instances in the last 50 cases of proved choledocholithiasis seen at Cleveland Clinic in which, in the absence of stones in the gall bladder, stones in the common duct have caused fever or colic without jaundice.

The third case is noteworthy because of the dramatic relief of symptoms following subdiaphragmatic vagotomy in the case of a patient who had been totally incapacitated for work by severe and frequent attacks of pain in the epigastrium and right upper quadrant in the absence of any demonstrable lesion of the biliary tract. This operation, recommended by Dragstedt for the treatment of peptic ulcer, is safe and simple, and although no conclusion can be drawn from a single observation, it would seem worth trying when confronted with the problem of intractable biliary colic and a grossly normal common bile duct.

Many patients who experience a persistence or recurrence of biliary colic following cholecystectomy but give no history of jaundice are highly emotional women. This type of patient is usually classified as "neurotic", and in many cases this designation is justified. Yet the work of McGowen, Butsch, Walters, and others who have studied this problem indicates that there is an element of spasm and increased pressure in the duct

associated with the attacks of pain. Whether section of the vagus nerve below the diaphragm will consistently accomplish what denervation of the common duct and section of the splanchnic nerves have failed to do requires much more evidence than is afforded by a short study of a single case.

### Summary

1. Stones in the common duct, when not associated with stones in the gall bladder, rarely cause chills, fever, or pain without causing jaundice.

2. Two cases are reported in which there were no stones in the gall bladder, but in which stones were present in the common duct without causing jaundice. In the first case a single large stone caused chills and fever for a year and a half. In the second, stones in the common duct caused severe biliary colic.

3. Persistent or recurrent pain following cholecystectomy may be due to stones in the common bile duct, but in the absence of jaundice this is unusual.

4. A case of post-cholecystectomy biliary dyskinesia relieved by subdiaphragmatic vagotomy is reported.

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## THE CONTROL OF HEMORRHAGE IN OTOLARYNGOLOGY

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Hemorrhage from any part of the body is distressing and terrifying to the patient. In the field of otolaryngology this is particularly true, for the patient has not only the fear of bleeding to death but also the fear of suffocation from the accumulated blood. This fear arises because the bleeding most often fills the air passages, interfering materially with breathing.

Severe hemorrhage from the ear is rare but can occur. It may follow trauma which has ruptured the ear drum or caused a skull fracture through the temporal bone. These hemorrhages are usually not severe and should be left alone. Ear drops should never be used in such cases unless infection ensues. If there is no infection the use of irrigation or the instillation of drops may set up a serious infection.

Blood may collect in the tympanum behind an intact drum following neurosurgical procedures in which the cranium is opened close to the mastoid and some of the mastoid cells exposed. Blood may also reach