

Cholecystogastric fistula with multiple gallstones causing pyloric obstruction

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Introduction:

Gallstones is a common disease all over the world with 10% prevalence in united states and Europe. However it is only symptomatic in 20-30% of patients with biliary pain (colic) being the most common symptoms (1,2). Complications of asymptomatic gallstones are rare with an incidence of less than one /year .The most common complications of gallstones are acute or chronic cholecystitis ,acute pancreatitis , ascending cholangitis, and gangrenous cholecystitis. Less frequent complications include Mirrizi syndrome, cholecystocholedochal fistula, and gall stone ileus.

One of the rare complications of gallstones is cholecystoenteric fistula.

Case report:

A sixty years old lady presented with attacks of right hypochondrial colicky pain associated with anorexia, nausea, and vomiting of undigested food She gave a history of similar attacks over the last few years with increasing severity

On Physical examination she was pale, thin, mildly dehydrated, but not jaundiced and had no lymphadenopathy.

Abdominal examination revealed soft abdomen, with no distention and there were no palpable liver, spleen or mass.

Ultrasound of the abdomen showed thick gallbladder and multiple gallstones, which were matted together and floating within the gall bladder, and a small simple cyst of the left lobe of the liver.

Hematological and biochemical tests were within normal, and no radiological examination was done as the diagnosis was clear that the patient had chronic calculous cholecystitis

Surgery was performed through a right paramedian incision to facilitate dealing with the hepatic cyst too.

On exploration, there was a hard mass at the prepyloric region of the stomach, the gall bladder couldn't be identified, and the omentum was firmly adherent to the area of mass.

Dissecting the omentum cautiously, we were able to define a hair-line attachment between the mass and the gall bladder. Further dissection revealed communication between gall bladder and the prepyloric region of the stomach of about three cm in diameter and thickening of the wall of both stomach and gallbladder.

After detachment of communication we found a large mass of hundreds of small gallstones, which were matted together and obstructing the pylorus of the stomach.

The stones were removed and biopsy from the edges of the fistula was taken followed by routine cholecystectomy and suturing of the stomach in two layers.

The patient had a smooth postoperative period and her general condition improved dramatically over the following weeks.

discussion.

Internal biliary fistulae are usually spontaneous and arise from chronic or acute perforation of gall bladder into an adjacent organ. Others are due to malignant infiltration arising from or involving gall the bladder. The most frequent of internal fistulae is the choledochoduodenal fistula followed by cholecystoenteric and cholecystogastric fistulae.(3). Gall stone ileus may complicate cholecystoenteric fistula and is caused by impaction of one or more gallstones within gastrointestinal tract. It accounts for less than 2% of mechanical small bowel obstruction and it follows the passage of gallstones into the intestinal tract through a biliary – enteric fistula (4). Cholecystogastric fistula is rare and review of the literature over the last two decades showed sporadic reports of such a fistula.

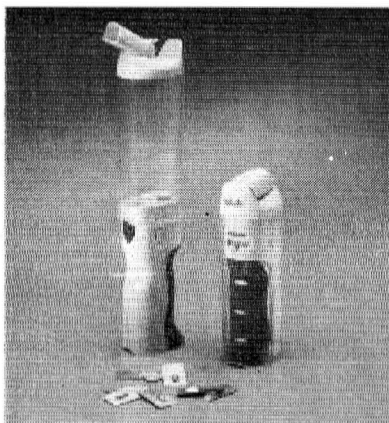
An Italian study by Arrisani et al, 2001 (2) involving 1500 laparoscopic cholecystectomy during the period 1990-1999 reported only 34 patients with cholecystoenteric fistula (0.2%) with one patient presented with cholecystogastric fistula.

On the other hand, Om tantia et al (6) mentioned in his study of 8015 patient with lap. cholecystectomy , 64 patients with pericholecystic fistula with only three cases of cholecystogastric fistula .An interesting observation was that the cholecystogastric fistula communicated with the gallbladder anteriorly,

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several of the nation's 18 million diabetics a chance for better control of their sugar levels.

Exubera®, which will be produced by Pfizer, Sanofi-Aventis, and Nektar Therapeutics, is a rapid-acting, dry-powder type of insulin that will be delivered to



Exubera®, with *Exubera*® Bong

the lungs via a special bong-shaped inhaler device, one whose simplicity and ease of use has been lauded as “not any more complicated than what diabetics rely on now.”

“This is great,” said Ed Martinez, a 43-year-old Type II diabetic who lives in Bayside, NY. “I’ve been waiting years for something like this. I mean, I’ve been working hard on my diet and exercise and all, but my diabetes has gotten to the point where I need to take the ‘fast’ insulin before I eat, but not *that* bad where I gotta take the ‘long-acting’ insulin too. And that’s a good thing, because I’m totally scared of needles, but not *so* scared where I can’t do the fingerpricks for the sugar testing.”

Like approximately ten or eleven other diabetics nationwide who appear to be appropriate candidates for this new inhaled form of insulin, Martinez also does not smoke, have asthma, chronic bronchitis, or any other known pulmonary condition. Also, he is immune to pathogens that could cause mucus to accumulate in the lungs, such as the common cold virus, other viruses, and all currently identified strains of *S. pneumoniae*, *H. influenzae*, and *M. pneumoniae*.

Most importantly, potential *Exubera*® users like Martinez must exhibit a complete lack of concern or awareness about the potential long-term effects of inhaling a powdered form of any substance into the lungs, let alone a powerful anabolic hormone like insulin.

Other chronic inhalations, such as those of dust, asbestos, talc, and silica, have been shown to lead to debilitating and irreversible conditions known as “pneumoconioses.” But while Pfizer, Sanofi-Aventis, and Nektar plan to conduct studies of long-term effects until 2019, the rush to get *Exubera*® onto the market as soon as possible is “entirely justified,” say company representatives.

“We can’t be waiting fifteen, twenty years to put things like this on the market,” said Stacey Carroll of Pfizer. “It’s a \$3 billion insulin and injector market, *right now*.”

FDA approval is anticipated by January 2006, and *Exubera*® is expected to be officially released by midyear.

whereas the cholecystoduodenal fistulae communicated more posteriorly.

He noticed that the highest incidence of pericholecystic fistula was found in the 60-years group, which he attributed to the long duration the disease was left untreated.

Obstruction of pylorus due to stone impacted in the pylorus following cholecystoenteric fistula was not mentioned previously apart from a report by Tadras et al who reported a bezoar (mass) formed around a gallstone that migrated to the stomach via a cholecystogastric fistula.

The diagnosis of cholecystogastric fistula is difficult but radiology of the abdomen may show gas in the biliary tree (Cushieri, Om tantia) but this is not a pathognomonic sign.

The diagnosis is usually made at the time of operation.

Treatment of such fistula consists of cholecystectomy and suturing of the fistula site after trimming (Cushieri).

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