

## CHOLECYSTOCOLIC FISTULA : A RARE ENTITY

Jawed Vayani, Irfan Mamoun, M. Ziyad Abubacker, Zergham Zia, Stephen Murphy, Badar Banan

Department of Radiology, King Faisal Specialist Hospital and Research Centre, Jeddah, Saudi Arabia.

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### ABSTRACT

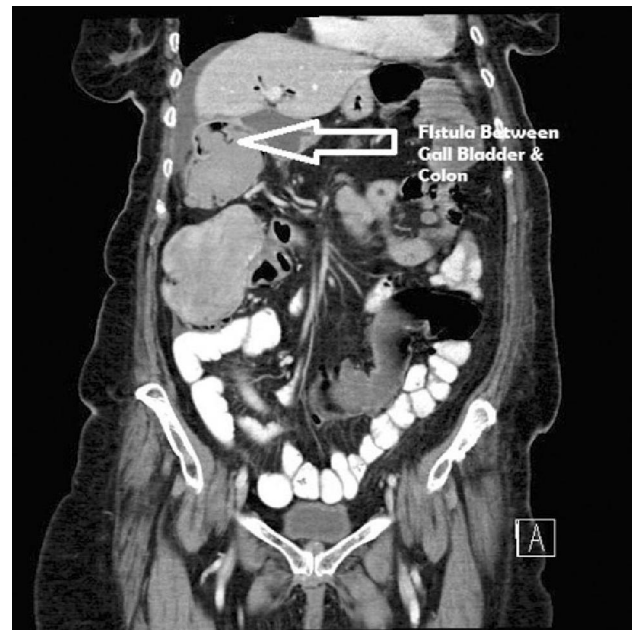
Cholecystocolic fistula is the most infrequent biliary enteric fistula, causing significant morbidity and representing a diagnostic challenge. Modern diagnostic tools, like cross sectional imaging is required preoperatively. These fistulae are treated mostly by open as well as laparoscopic surgery. We report an imaging review of cholecystocolic fistula. Patient present with abdominal pain & bleeding per rectum. Previous ultrasound was done few months ago with cholelithiasis, because of acute abdomen we directly precede with computed tomography abdomen with I/V contrast. The case was finally diagnosed on the CT scan abdomen as cholecystocolic fistula in the background of acute cholecystitis. Computed tomography is the best tool not only to diagnose but findings the complication associated with cholecysto-colic / enteric fistula.

**Keywords:** Biliary-enteric fistula, Complicated acute cholecystitis, Cholecystocolic fistula

### Case Report

A 95 year-old lady presented to the emergency department of our hospital with a history of abdominal pain & tender in the right hypochondrium & given the history of hematochezia. Blood examination revealed an elevated serum inflammatory markers & normal hemoglobin levels. After discussion with referring physician, considering the acute abdomen, patient

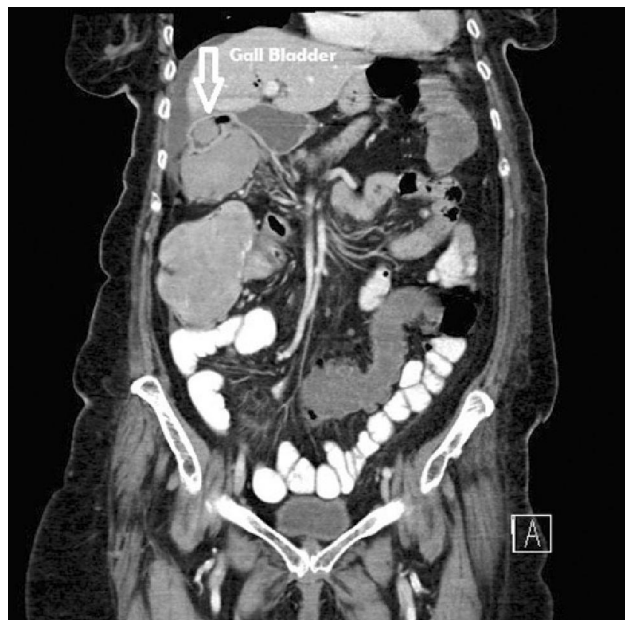
was sent for the computed tomography of the abdomen with I/V contrast for further assessment.



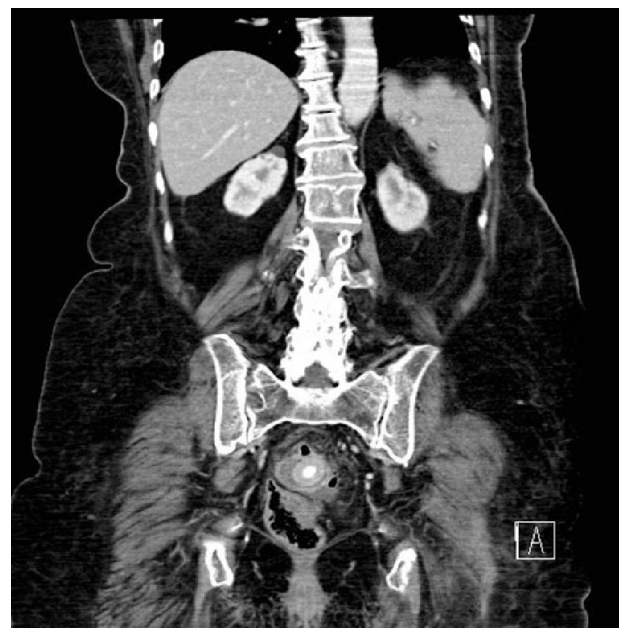
**Correspondence :** Dr. Jawed Vayani  
Department of Radiology,  
King Faisal Specialist Hospital and Research Centre,  
Jeddah, Saudi Arabia.  
Email: jawedy@gmail.com

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CT scan report revealed intra hepatic biliary dilatation with pneumobilia. Gall bladder was not distended & containing air within the lumen. A fistulous communication noted between the wall of hepatic flexure of the colon with gall bladder lumen. There was large calculus noted residing in the rectum.



bladder. The ischemic area in the wall of the gall bladder which becomes gangrenous, its contents penetrate its own necrotic wall first, and then, the wall of the adjacent colon, forming a cholecystocolic fistula.<sup>1</sup>



Spontaneous cholecysto colic fistulae result as complications of cholecyctic diseases which actually follows a sequence of events. During acute inflammation of the gall bladder, the adjacent serosal surface becomes inflamed and adherent to the gall



## Discussion

Cholecystocolic fistula is a rare biliary-colic fistula with a variable clinical presentation. Biliary-enteric fistulae have been found in 0.9% of patients undergoing biliary tract surgery. The most common site of communication of the fistula is a cholecystoduodenal (70%), followed by cholecystocolic (10 - 20%), and the least common is the cholecystogastric fistula accounting for the remainder of cases. Spontaneous cholecystocolic fistulae comprise 10 - 20% of all biliary-enteric fistulas. In the majority of cases, they are a sequel to cholecystitis but are reported to complicate only 0.13% cases.<sup>1</sup>

They have also been reported in crohn's disease, ulcerative colitis, abdominal trauma, and malignancy of the biliary tract, the bowel, and the head of the pancreas.<sup>2</sup> Cholecystocolic fistulae can present with abdominal pain, nausea, weight loss, diarrhea, and hematochezia. This fistula change the enterohepatic circulation of bile acids, leading to their malabsorption. The bile acids also stimulate the colonic mucosa

directly to secrete water and electrolytes excessively, leading to steatorrhea and diarrhea.<sup>3</sup> Some time the rectal stone being impacted at the rectosigmoid causing large bowel obstruction due to such fistulae.<sup>4</sup> The techniques for diagnosis are a plain film of the abdomen, abdominal ultrasonography, MRCP& the most useful is CT scan. Although a diagnosis of cholecystocolic fistula is rarely suspected clinically, it should be considered in elderly patients with unexplained pneumobilia or unexplained persistent diarrhea. CT scan is very helpful in establishing the diagnosis.<sup>5</sup> The standard treatment of a cholecystocolic fistula is open cholecystectomy and closure of the fistula. However, recent developments in laparoscopic surgery have shown its potential use in treating these rare fistulas. The results have shown no significant differences in intraoperative and postoperative complications.<sup>6</sup>

Computed tomography is the best diagnostic tool in diagnosing the suspected cholecysto-colic fistula, as we can see the intra luminal & extraluminal abnormality & associated complication in post acute cholecystitis. Associated small or large bowel obstruction inflammation & galls tone ileus can collectively be diagnose on this imaging.

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