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Case Report

Campylobacter cholecystitis

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Abstract

There are 13 cases of campylobacter cholecystitis reported so far in the medical literature. Among them, only 4 patients had diarrhea. We report another case of acalculous cholecystitis in a setting of campylobacter enteritis. The case report is followed by a literature review regarding this rare condition.

Key words: Campylobacter cholecystitis, Extra-intestinal manifestations of campylobacter, cholecystitis, campylobacter

Case

A 35-year-old healthy lady presented with high grade fever, severe abdominal pain, nausea, vomiting and profuse watery diarrhea, sometimes green in color. There was no history of animal contact, recent travel or camping. On exam, the patient was hypotensive and was looking acutely ill. Initial labs showed leukocytosis of 11900 with 39% bands. She also had hypokalemia of 3.3 mmol/L, acute kidney injury with elevated creatinine of 1.6 mg/dl from a baseline of 0.6 secondary to dehydration. She was resuscitated with IV fluids, started on empirical Ciprofloxacin and Metronidazole. The patient continued to have abdominal pain. Murphy's sign was positive which prompted us to do a right upper quadrant ultrasound which showed thickened gall bladder wall of upto 1cm consistent with cholecystitis. Stool culture grew campylobacter sensitive to erythromycin. Ciprofloxacin and Metronidazole were changed to Erythromycin and she also underwent a laparoscopic cholecystectomy. The pathology report confirmed acalculous cholecystitis. No sludge was noted. Patient started feeling better after the surgery and was discharged home. During the post-hospitalization follow-up after 2 weeks the patient was asymptomatic except for occasional loose stools.

Discussion

Campylobacter is a small, slender, gram-negative curved rod, which is one of the most common causes of enteritis in humans. Campylobacter fetus may have some attraction towards the gallbladder as in a survey, 20% of slaughtered 700 cattle and sheep harbored this bug in their gallbladder.[1]

Campylobacter can cause cholecystitis without diarrhea unlike the case that we report here. Please see the table for clinical presentations of the reported cases of campylobacter cholecystitis. The diagnosis of campylobacter cholecystitis is usually missed because culture of campylobacter is not routinely requested after cholecystectomy. However, even if the bile is cultured, campylobacter appears to be a less common cause of cholecystitis. Darling et al cultured about 280 bile samples post cholecystectomy for campylobacter. But none of them grew campylobacter.[2] Hence routine ordering of bile culture under microaerophilic condition is not recommended unless the Gram stain shows gram negative curved rods. [3] Resistance of Campylo-

bacter fetus to cephalosporins and penicillins was reported as early as 1986.[4] Majority of the reported cases including our patient had good outcome with cholecystectomy and antibiotics especially erythromycin (see Table 1). Only one of the reported cases died, however she had advanced hepatocellular carcinoma.[3] There is one case report of relapse of campylobacter bacteremia in a AIDS patient in about 8 months after the first episode of campylobacter cholecystitis.[1] In conclusion, campylobacter cholecystitis is rare but should be kept in the back of the mind while treating a patient with campylobacter enteritis.

Table 1: List of reported Campylobacter cholecystitis cases.

Author/Year	Age/ Sex	Case presentation	Treatment/ Outcome
Darling et al (1979)	11 M	Abdominal pain, fever, vomiting	Cholecystectomy and erythromycin
Darling et al (1979)	60 F	Chronic intermittent abdominal pain with occasional obstructive jaundice.	Elective cholecystectomy without any antimicrobial therapy. Uneventful recovery.
Darling et al (1979)	32 F	Abdominal pain, diarrhea	Cholecystectomy. Uneventful recovery
Mertens et al (1979)	52 F	Abdominal pain, fever, diarrhea	Cholecystectomy + chloramphenicol for 5 days. Uneventful recovery
Costel et al (1984)	24 M	AIDS, pain abdomen, fever. Had a perforated Gallbladder.	Cholecystectomy + 2 weeks of erythromycin, tobramycin and nafcillin. Relapse after 8 months with bacteremia
Juliet C et al (1986)	46 F	Bile culture after elective cholecystectomy for cholelithiasis grew Campylobacter.	Uneventful after cholecystectomy
Verbruggen et al. (1986)	55 M	Abdominal pain	Cholecystectomy + Erythromycin. Uneventful recovery
Taziaux P et al (1991)	62 M	Abdominal pain	Cholecystectomy and erythromycin
Hoop et al (1993)	84 F	Vomiting, diarrhea	Explorative laporatomy and Erythromycin. Uneventful recovery
Landau et al (1995)	83 M	Fever, diarrhea, abdominal pain, vomiting	Cholecystectomy, Ofloxacin
Takatsu et al (1997)	64 F	Advanced hepatocellular carcinoma, abdominal pain, fever	Fosfomycin and Minocycline. Resolution of fever in 3 days of antibiotics. However the patient died secondary to advanced hepatocellular carcinoma
Drion (1998)	62 M	Abdominal pain, nausea	Cholecystectomy + Erythromycin
Hayashi S et al (2005)	81 M	Abdominal pain, fever	Antimicrobial therapy with no cholecystectomy

Conflict of Interest

The authors have declared that no conflict of interest exists.

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