AN UNCOMMON CAUSE OF HEPATIC LESIONS
Jessica Kumar, DO, MPH
Division of Medicine and Pediatrics, Albany Medical College, Albany, New York
Stratton VA Medical Center, Albany, New York

ABSTRACT
An uncommon etiology of intra-abdominal abscesses presenting as appendicitis in a patient with travel exposure. A 52-year-old African-American male presented to the emergency department with four days of dull, achy abdominal pain, nausea, fever, and non-bloody diarrhea. The abdominal symptoms progressed as sharp and stabbing pain in the right upper and lower quadrants. He had remote history of being stationed in Panama with episodes of non-bloody diarrhea occurring intermittently for months since his return, with no clear etiology. He had a past medical history of diverticulosis and remote use of tobacco and alcohol abuse. Physical exam revealed a temperature of 103.4°F, tachycardia, tachypnea, and tenderness to palpation in right upper and lower quadrants with rebound, guarding and tenderness at McBurney’s point. Laboratory tests revealed a leukocytosis with neutrophilia and bandemia, transaminisits, elevated alkaline phosphatase and hyperbilirubinemia. CRP and ESR markers were elevated. Chest radiograph showed elevation of the right hemidiaphragm. Abdominal CT was ordered to evaluate for appendicitis and revealed one irregularly shaped mass in the left lobe and a hypodense lesion in the dome of the posterior right lobe. MRI demonstrated well-marginated lesions without much edema, the larger containing cystic and tubular structures and the smaller being well circumscribed and enhancing, without abscess walls. Differential diagnosis included: metastatic tumor, liver abscess from hematogenous seeding from diverticulitis, liver tumor secondary to alcohol use, hydatid cysts or amoebic liver abscess such as Echinococcus vogeli, endemic to Panama producing polycystic hydatid disease. The patient continued to have fevers, leukocytosis, hyperbilirubinemia, transaminisits and elevated alkaline phosphatase despite being placed on imipenem/cilastatin and metronidazole. Blood cultures taken on the day of admission grew anaerobic fusobacterium species with filamentous rods. Fusobacterium is the etiology of <10% of cases of anaerobic bacteremia and is typically associated with oropharyngeal and pulmonary infections. The patient left the hospital against medical advice on oral ciprofloxacin and metronidazole, and returned within a week for drainage of the larger abscess. A pre-procedure ultrasound demonstrated an interval decrease in size of the abscess and he was continued on oral antibiotics. This case illustrates the importance of a thorough history, accurate and prompt diagnosis with adequate antibiotic coverage and possible surgical drainage of such cases. Without treatment, mortality rate is 100%. Mortality decreases to 15-20% with appropriate treatment or surgical intervention.

REFERENCES
7) Jurin, J, Luthey, R and Gabler, J. An unusual case of hepatic abscess. Praxis (Bern) 1994;

CASE STUDY
52 yr old African-American male c/o abdominal pain, diarrhea, nausea, fever and chills. His symptoms started four days previous to admission as a dull, achy abdominal pain inferior to the umbilicus and in the right quadrant, which worsened and became sharp and quite severe. He had a significant travel history of being stationed in Panama for 18 months while in the service. He said after coming back to the United States he began to have GI problems including attacks of diverticulitis and a bowel obstruction. Significant physical findings included a temperature of 103 and a heart rate of 120. On physical exam his abdomen was soft, distented and tympanic with tenderness around McBurney's Point, positive Rovsing sign but no organomegaly. Bowels were hypotonic. Patient demonstrated a leukocytosis with a white blood cell count of 18.4 and a differential of neutrophils of 75 with a bandemia. Significant labs included: total bili 2.5, direct bili: 1.9, SGOT 74, ALT 120, total protein 7.4, albumin 3.7, alkaline phosphatase 103.

BACKGROUND
Liver abscesses are the most common visceral abscess (48% of all abscesses) and make up 13% of intrabdominal abscesses with an incidence of 8-15 cases per 100,000 population.
· Risk factors for abscess formation include diabetes, hepatobiliary/pancreatic malignancies and liver transplants. Bacteriodes is a common organism in intra-abdominal abscess formation and peritonitis.
· Other organisms include Fusobacterium nucleatum, Escherichia coli and Klebsiella pneumoniae.
· Initial clinical presentation can mimic appendicitis and/or dull right upper quadrant pain with fever of unknown origin (FUO).
· The four poor prognostic factors include: age >70 years, multiple abscesses, polymicrobial infection, malignancies and immunosuppression.

RUQ ULTRASOUND
Right upper quadrant echo shows an irregular marginated mass (4.1 x 4.0 cm) within the left lobe of the liver. The posterior segment of the larger cyst was notable for necrotic tissue with inflammation. The patient left the hospital against medical advice on oral ciprofloxacin and metronidazole, returned within a week for drainage of the larger abscess. A pre-procedure ultrasound demonstrated an interval decrease in size of the abscess and he was continued on oral antibiotics.

FUSOBACTERIUM
Microscopic specimen of Fusobacterium

CONCLUSION
· The patient responded well to medical management with antibiotics and supportive care. Although the morbidity and mortality of liver abscesses is very high, a prompt identification and diagnosis is a must and can be life saving.
· Liver abscesses can be challenging to diagnose because they can mimic common presentations, like appendicitis, and therefore, should always be included in the differential diagnosis.
· This case illustrates the importance of a through history, accurate and prompt diagnosis with adequate antibiotic coverage and possible surgical drainage of such cases.
· Without treatment, mortality rate is 100%. Mortality decreases to 15-20% with appropriate treatment or surgical intervention.
· Aggressive management in the case of poor prognostic factors is necessary.

IMAGING/MRI
There are two lesions in the liver measuring 4 cm and 7 cm. For the larger space occupying lesion the volume consists of a collection of cystic and tubular structures.