Acute Cholangitis Characteristics and Clinical Features

Acute cholangitis (a.k.a. ascending cholangitis) is a clinical syndrome that results from biliary tract infection that may occur in the context of biliary tract obstruction. Clinical features include Charcot's triad, which is fever, jaundice, and abdominal pain. In severe cases, Reynold's pentad may be evident which involves features from Charcot's triad in addition to hypotension and altered mental status.



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Characteristics

Biliary Tract Infection
Bill-duck In-flames with Bacteria-guys
Ascending cholangitis is caused by bacterial infection of the biliary tract/ducts, typically by organisms that ascend from the intestine (hence the "ascending").

Biliary Tract Obstruction
Stone obstructing duct-duck's mouth
Ascending cholangitis typically occurs in the setting of an obstruction of the biliary tract. As bacteria from the GI tract traverse the sphincter of Oddi, even in small numbers, the presence of a foreign object or blockage can act as a nidus for bacterial colonization and infection.

Clinical Features

Charcot's Triad
Charcoal Triangle
Charcot's triad, consisting of jaundice, fever, and abdominal pain, is classically associated with ascending cholangitis.

Fever
Fever-beaver
Fever is one of the three signs/symptoms of Charcot's triad. This occurs due to bacterial infection and the subsequent release of cytokines.

Jaundice
Jaundice-janitor
Jaundice is one of the three signs of Charcot's Triad. This occurs due to a physical back up of bile, causing hepatocyte damage and conjugated hyperbilirubinemia. This is a type of obstructive jaundice.

Abdominal Pain
Abdominal Pain-bolt
Abdominal pain is one of the three components of Charcot's Triad. Ongoing inflammation due to the infection irritates biliary nociceptors. In addition, obstruction and distention of the gallbladder and biliary tree can be perceived as abdominal pain.

Reynold's Pentad
Ryan Reynold's Pentad
Charcot’s triad is a valuable tool on its own for evaluating patients with suspected cholangitis, but can be made more efficacious through the addition of two notable symptoms: Hypotension and altered mental status. This combination of five symptoms/signs is known as Reynold’s Pentad. Patients with these additional signs/symptoms typically have more severe disease.

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+ Hypotension

Hippo-BP

Patients with severe acute cholangitis may present with hypotension due to extensive inflammation and bacteremia. This finding is highly concerning as it indicates severe disease.

+ Altered Mental Status

Delta-halos

Like hypotension, altered mental status in a previously healthy patient with acute cholangitis indicates severe disease.

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