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Answer: Acute cholangitis

Cholangitis is the term used for the inflammation of bile duct. There are two main forms of cholangitis: *Primary Sclerosing Cholangitis* (PSC) and *acute cholangitis* (also known as *ascending cholangitis*). Acute cholangitis is bacterial infection within the bile duct, usually as a complication of biliary obstruction.

Acute Cholangitis (AC) most commonly develops in patients with *choledocholithiasis* (stones within the bile ducts). Approximately a third of patients with AC develop it from other causes such as tumours, acute pancreatitis, benign strictures and rarely fungi, viruses or parasites.

Under normal circumstances, the biliary tree is a low pressure system and bile flow is regulated by the sphincter of Oddi. The system is sterile if the sphincter is intact and the components of bile (e.g. Ig) secreted by the epithelial cells also has a protective role. However, when there is an obstruction, these protective mechanisms fail to function properly causing cholangitis. Increased pressure caused by the obstruction in the bile duct also widens the space between the cells lining the duct, causing bacteraemia which will in turn give rise to bacteraemia and septicemia resulting in cholangitis.

With AC, the patient may complain of right upper quadrant abdominal pain, fever,

rigors, loss of appetite and lethargy. Presence of right upper quadrant or abdominal pain, fever and jaundice constitute 'Charcot's triad' and the additional presence of hypotension and confusion is known as the 'Reynold's pentad'. History of intermittent symptoms suggests bouts of partial obstruction. Physical examination often reveals jaundice and tenderness on the right upper quadrant of the abdomen. Blood tests will show features of acute inflammation and abnormal liver profile that is often mixed picture in the acute phase. Blood cultures commonly isolate enteric gram negative anaerobes such *Escherichia coli* and *Klebsiella*. Imaging with ultrasound scan is the first line of investigation.

Treatment includes administering antibiotics to relieve the infections but more importantly, the obstruction should be treated. Endoscopic retrograde cholangioscopic (ERC) intervention is the most common approach in decompressing the bile duct. Stones can be removed with basket or balloon. Strictures or stones can be stented to decompress the system.

Cholangitis can be life-threatening and shock with multiple organ failure is the leading cause of death which can be prevented by early biliary drainage and treatment with systemic antibiotics. AC needs to be considered in patient presenting with fever, abdominal pain and jaundice

REFERENCES

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