

# INFECTIVE CONDITIONS OF THE LIVER Ascending cholan

## INFECTIVE CONDITIONS OF THE LIVER Ascending cholangitis

- Ascending cholangitis is a potentially life-threatening emergency associated with infection of the biliary tree and usually associated with obstruction. It presents with clinical jaundice, rigors and a tender right upper quadrant (Charcot's triad). The most common bacteria linked to ascending cholangitis are gram-negative bacilli: Escherichia coli (25-50%), Klebsiella (15-20%) and Enterobacter (5-10%). The diagnosis is confirmed by the finding of dilated bile ducts on ultrasonography, an obstructive picture of liver function tests and organisms identified from blood cultures. Delay in appropriate treatment may result in multiorgan failure secondary to sepsis and broad-spectrum antibiotics, rehydration, and endoscopic or percutaneous transhepatic drainage are urgently required. Biliary stone disease is a common predisposing factor although strictures, pancreatitis, pancreatic tumours and parasites may also be responsible. If an obstructive cause is identified it must be urgently treated by ERCP, sphincterotomy ( $\pm$  stent) or percutaneous drainage. Microbial contamination of the liver leading to a liver abscess continues to occur at a fairly constant rate of approximately 1/5000 hospital admissions. The incidence of causative organisms varies and reflects changes in aetiology and geographical distribution. Bacterial, parasitic and fungal organisms can cause liver abscess but, worldwide, bacteria remain the most common; although infection is usually polymicrobial Klebsiella, Escherichia coli and the Streptococcus milleri group are the usual organisms identified. There is an increased incidence in the elderly, those with diabetes and the immunosuppressed and presentation is usually with anorexia, fever, malaise and right upper quadrant discomfort. The overall mortality has declined because of improved imaging and effective antimicrobial therapy and the outcome is increasingly dependent on the underlying cause and the presence of comorbidities. Biliary tract pathology is the most common source (35%), followed by portal spread from the gastrointestinal tract, including diverticulitis and appendicitis (20%). Other unusual aetiologies include contiguous spread from subphrenic or intra-abdominal collections, bacteraemia secondary to trauma or infected cysts and necrotic tumours following chemotherapy. The cause is not identified in 10% of cases and a number of liver abscesses become recurrent (12-38% depending on whether the responsible organism is identified and whether the patient has diabetes). The diagnosis is suggested by the finding of a multiloculated cystic mass on ultrasonography or CT scan (Figure 69.18) and is confirmed by aspiration. Treatment of liver abscesses initially requires identification of the source, if possible, aspiration of the lesion for microbiology and culture (repeated aspirations may be required) and treatment with appropriate antibiotics. Simple cysts containing debris, hydatid cysts, necrotic tumours

and non-infected haematomas (after unrecognised or occasional trivial trauma) can all be mistaken for abscesses. Antibiotic treatment using  $\square$   $\square$  Theodor Albrecht Edwin Klebs , 1834–1913, Professor of Bacteriology successively at Prague, Czechoslovakia, Zurich, Switzerland, and the Rush Medical College, Chicago, IL, USA. Metronidazole and clindamycin provide wide anaerobic coverage and excellent penetration into the abscess cavity . Third-generation cephalosporins and aminoglycosides are - very e ff ective against most Gram-negative organisms.

Figure 69.18 Liver abscess. Computed tomography scan showing an air- /f\_l uid level and rim enhancement (open arrow). The second lesion seen is a haemangioma (closed arrow).

---

Revision #1

Created 2025-12-31 15:25:38 UTC by Omar Ayman

Updated 2025-12-31 15:25:38 UTC by Omar Ayman