



A Case of Pyogenic Liver Abscesses and Pylephlebitis with Sigmoidal Diverticulitis

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LEARNING OBJECTIVES

- ❖ Label the relationship between pyogenic liver abscesses, pylephlebitis and sigmoidal diverticulitis
- ❖ Identify the organisms most often associated with pyogenic liver abscesses

CASE PRESENTATION

A 71-year-old male with type 2 diabetes presented with acute onset fever/chills, abdominal pain and jaundice. Labs showed a leukocytosis of 19,000 IU/L and a cholestatic liver injury pattern with hyperbilirubinemia.

HOSPITAL COURSE

CT abdomen/pelvis:

- ❖ Right hepatic hypodense lesion
- ❖ Right portal vein thrombosis
- ❖ Sigmoidal diverticulitis

Piperacillin-tazobactam and metronidazole initiated

MRCP:

- ❖ Right hepatic duct diminution
- ❖ Numerous hypointense foci in right liver lobe

Underwent ERCP with multiple stent placements and liver biopsy, revealing acute cholangitis. Blood cultures grew *Streptococcus intermedius*.

Prescribed amoxicillin/clavulanic acid for four weeks at discharge. Imaging two weeks later:

- ❖ Intrahepatic abscess resolution
- ❖ Improvement in portal vein thrombosis

FIGURES

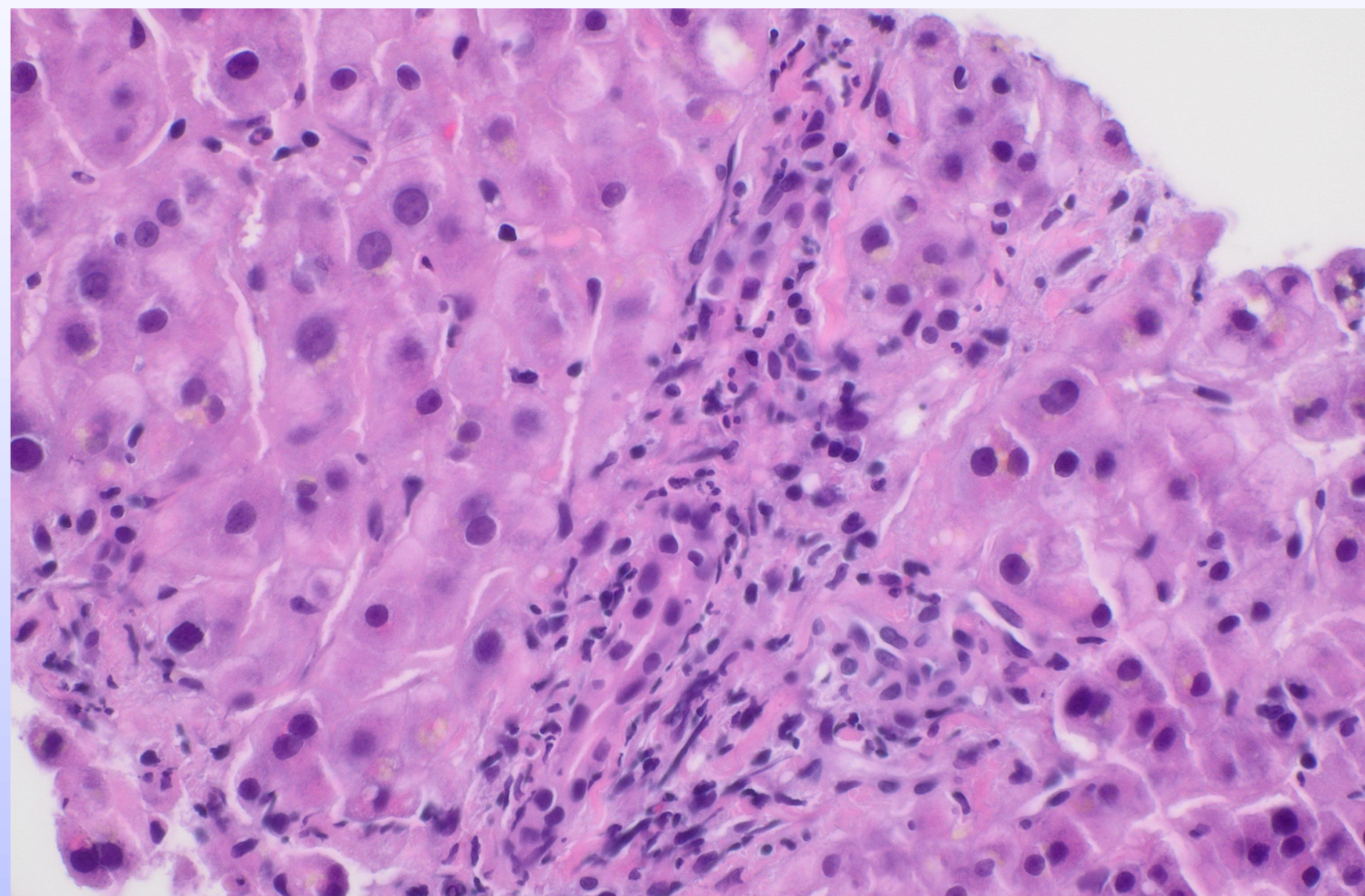


Figure 1: Bile ductular proliferation and mixed inflammatory infiltration (mostly neutrophilic) in the portal triad



Figure 2: Computed tomography of the abdomen/pelvis demarcating a well-circumscribed, hypodense lesion within the right hepatic lobe

DISCUSSION

Hypothesized relationship between pyogenic liver abscesses (PLAs), pylephlebitis and diverticulitis:

- ❖ Diverticular disease leads to disruption of the colonic mucosal barrier, facilitating bacterial translocation into the portal venous system
- ❖ Can cause pathology remote from the site of primary infection

Bacteria associated with PLAs:

- ❖ *Escherichia coli*
- ❖ *Klebsiella* spp
- ❖ *Streptococcus milleri* group
 - ❖ *S. anginosus*, *constellatus*, *intermedius*

Therapeutic options:

- ❖ Treatment of both PLAs and pylephlebitis is aimed at the primary infection
- ❖ Anticoagulation for pylephlebitis remains controversial

CONCLUSION

- ❖ In patients with acute diverticulitis with features of acute cholangitis, we suggest a heightened clinical suspicion of both pyogenic liver abscesses and pylephlebitis.

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