Unusual Hepatic and Pancreatic Abscesses Masquerading as Malignancy

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Introduction

- Benign masses causing obstructive jaundice could be inflammatory (chronic and autoimmune pancreatitis), pseudocysts and less commonly, abscesses.
- We report a case of a pancreatic head abscess associated with multiple liver abscesses caused by *Streptococcus intermedius* that had radiologic evidence of metastatic pancreatic cancer.

Case Description

A 59 y/o Caucasian male was admitted to the hospital for gradual onset abdominal pain and three week history of fever, chills and weight loss. He had a history of pancreatic exploration and necrosectomy for acute necrotizing pancreatitis sixteen years ago. On examination, he was febrile at 102 ^{o}F, had icterus and severe abdominal tenderness. Blood tests showed a WBC count of 31,000/mm^3 with 97% neutrophils and elevated liver function tests. CT scan of abdomen revealed moderate ascites and multiple hepatic masses, suspicious for metastatic disease, and a large mass in the head of the pancreas with dilated pancreatic and common bile ducts. Ascitic fluid analysis suggested secondary bacterial peritonitis with no malignancy. A trans-esophageal echocardiogram did not reveal vegetations. Liver mass aspirate and blood cultures grew *Streptococcus intermedius*, sensitive to penicillin and vancomycin. Treatment with intravenous antibiotics for six weeks was initiated and percutaneous drainage of the abscesses was performed. Follow-up CT scans of the abdomen showed complete resolution of abscesses.

Endoscopic Procedures

An endoscopic ultrasound (EUS) demonstrated dilated common bile duct (CBD) with two to three distal stones and calcified, heterogenic, poorly demarcated mass at the head of the pancreas with peripancreatic lymphadenopathy. Both CT-guided percutaneous biopsy of the liver and EUS-FNA of the pancreatic head lesion showed neutrophilic inflammatory debris and bacterial colonies in the background of few benign reactive hepatocytes and no evidence of malignancy. An endoscopic retrograde cholangiopancreatography (ERCP) demonstrated three filling defects in the distal CBD. Sphincterotomy was performed and a common bile duct stone was removed with balloon sweep. The final cholangiogram revealed complete clearance of the common bile duct.

Figures

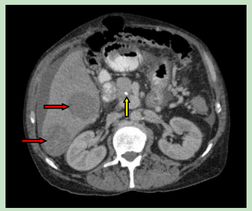

Figure 1. A CT scan abdomen with contrast showing hepatic (red arrows) and pancreatic (yellow arrow) abscesses.

Figure 2. CT scan imaging of the abdomen showing pancreatic abscess (arrow).

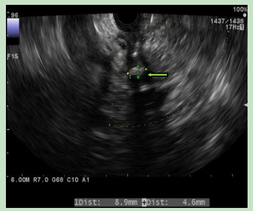

Figure 3. An Endoscopic Ultrasound showing a common bile duct (CBD) stone (arrow).

Figure 4. Endoscopic ultrasound (EUS) imaging of the pancreatic head mass (green lines).

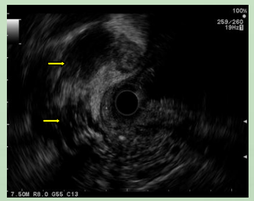

Figure 5. Liver lesions as seen on the endoscopic ultrasound (arrows).

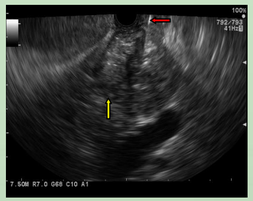

Figure 6. Fine needle aspiration (red arrow) of the pancreatic mass (yellow arrow) under endoscopic ultrasound guidance.

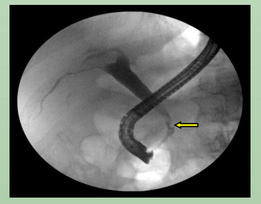

Figure 7. An ERCP image showing two filling defects in the distal common bile duct (arrows).

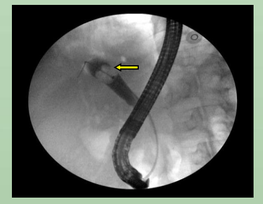

Figure 8. An ERCP image showing balloon sweep (arrow) of the common bile duct (CBD).

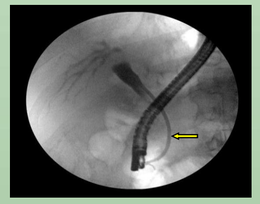

Figure 9. An ERCP image showing successful deployment of a biliary stent (arrow).

Discussion

Hepatic abscesses are the most common type of visceral abscesses. Biliary disease is the most common source and *Streptococcus anginosus* group is the most common cause of pyogenic hepatic abscesses which are usually monomicrobial[1]. *Streptococcus intermedius* forms normal flora of oral and GI tracts and is known for its ability to cause liver and brain abscesses[2] through the production of a cytolytic toxin called *intermedilysin*[3]. Treatment consists of antimicrobial therapy with sensitive antibiotics and abscess drainage[4]. The presence of hepatic abscesses secondary to this organism should warrant screening for silent colorectal cancer[5].

Conclusion

While malignant tumors of the head of the pancreas represent the majority of the causes of obstructive jaundice, benign masses, i.e. abscess, should be suspected, particularly if the patient presents with high fever. When the diagnosis is suspected, appropriate endoscopic procedures as EUS and ERCP can confirm the diagnosis and unnecessary explorative laparotomy or pancreatic resection can be avoided.

References

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