LEARNING OBJECTIVES

• Recognize that pyogenic liver abscess is an uncommon, but potentially life-threatening cause of fever, jaundice and right upper quadrant pain.
• Identify typical symptoms associated with pyogenic liver abscesses.
• Identify risk factors associated with ingestion of sharp foreign bodies.
• Understand the typical microbiology of liver abscesses.
• Diagnose potential liver abscesses in a timely manner in order to optimize treatment strategies and minimize treatment failure.

CASE DESCRIPTION

History of Presenting Illness:
A 31-year-old male prisoner presented with subjective fever, chills, RUQ pain and jaundice x 1 week with associated nausea and biliary, non-bloody emesis occurring several times daily. A few months prior, the patient swallowed two pen cartridges in a suicide attempt while he was incarcerated. After the ingestion, he had constant abdominal pain and poor appetite but concealed his symptoms. He denied any hematemesis, hematochezia or melena. At an outside hospital, the patient had an exploratory upper endoscopy which revealed two pen cartridges perforating the duodenum. The cartridges were extracted and mucopurulent discharge was evident at the sites of perforation. The patient was transferred for further management of jaundice and infection.

Past Medical History:
1) Hypertension
2) Hypothyroidism
3) Bipolar Disorder

Medications
1) Geodon 80 mg po bid
2) Zoloft 100 mg po daily

Allergies:
Sertraline

Physical Exam
VS: 36.7 °C (98.1°F) | BP: 95/61 mmHg | Pulse: 66 | Resp: 16 | SpO2: 98 %

General: jaundiced, edematous young man in NAD
HEENT: icteric sclera, EOM, PERRL, Neck supple. No adenopathy, thyroid symmetric, normal size. No JVD.
Heart: Normal rate and regular rhythm, no murmurs, clicks, or gallops.
Lungs: Decrease breath sounds at right lung base.
Abdomen: +BS, obese, TTP in RUQ, no rebound tenderness, mild voluntary guarding, +HM with liver span approximately 20 cm, no splenomegaly, no ascites.
Extremities: 3+ bilateral pitting LE edema to sacrum
Skin: jaundice, no spider angioma or palmar erythema.

Laboratory Data:
WBC 17.4, Hgb 9.9, HCT 28.9, plt 292; BMP WNLI; Tbill 15.1, Dbi 7.5, AST 82, ALT 53, alk pharm 306, albumin 1.3. Cultures of the hepatic lesions were positive for Streptococcus anginosus.

DISCUSSION

• The annual incidence of liver abscess in the U.S. is estimated at 2.3 cases per 100,000.
• Typical clinical manifestations of pyogenic liver abscesses are fever, abdominal pain, nausea, vomiting, anorexia, weight loss and jaundice.
• Case reports of ingestion of a foreign body with subsequent migration resulting in liver abscess formation have been described in the medical literature. However, in very few of these cases, the patient recalled or reported ingestion of a foreign body.
• Predisposing factors for foreign body ingestion in the majority of these cases included psychiatric conditions, alcohol abuse or imprisonment.
• Typical migrated foreign bodies include fish bones, chicken bones and tooth picks. Metallic foreign bodies causing liver abscesses such as needles, pens and wires have been reported with less frequency.
• Liver abscesses are typically polymicrobial with mixed enteric facultative and anaerobic species.
• Streptococcus anginosus, a subgroup of Streptococcus viridans, however, is an important cause of liver abscesses. This group is part of the normal oral and gastrointestinal flora and is known for its pathogenicity and tendency for abscess formation.
• Abscesses caused by S. anginosus tend to be monomicrobial and the abscesses caused by S. anginosus are more likely to result in liver abscess formation have been described in the medical literature.
• Accurate diagnosis of pyogenic liver abscess requires careful history taking, clinical exam, review of abdominal imaging and culture of abscess material.

REFERENCES


A LITERARY INDISCRETION: JAUNDICE & PYOGENIC LIVER ABSCESSES CAUSED BY INGESTION OF FOREIGN BODIES

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