中文題目：禍不單行—細菌性肝膿瘍合併膿胸及肝支氣管瘺管之病例報告
英文題目：Double Whammy: A Pyogenic Liver Abscess with Rare Complications of Empyema and Hepatobronchial Fistula
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Introduction :

Hepatobronchial fistula (HBF) is a rare complication of pyogenic liver abscess conferring high mortality and mobidity rate if adequate treatment is not applied. Herein, we present a case of liver abscess complicated with HBF and emphasize the importance of early recognition and management.

Case report :

A 70 years old male with hypertension and type 2 diabetes mellitus presented to the emergency department(ED) with intermittent fever for 5 days. He also reported productive cough with whitish-sticky sputum, intermittent right upper quadrant pain and poor appetite with body weight loss about 8 kg, which had been noticed for three weeks.

At ED, physical examination revealed that crackles breathing sound at right lower lung field and right costo-vetebral angle knocking pain, the laboratory data showed leukocytosis(22,000/uL), elevated C-Reactive protein(CRP) level(196.37mg/L). Chest x-ray revealed right lung pneumonia with pleural effusion. Bedside echography showed an unexpected heterogeneous echogenic liver lesion suggesting a liver abscess. Antibiotics with ceftriaxone and metronidazole were empirically prescribed and pigtail indwelling was performed. Pus-like aspirate from pigtail suggested the presence of empyema. Abdominal computed tomography(CT) showed liver abscess (about 8.9cm x 5.1cm) with right lower lung abscess and right empyema. CT-guided percutaneous abscess drainage(PTAD) was performed. Both abscess and sputum cultures yielded *Klebsiella pneumoniae*. Video-assisted thoracoscopic surgery (VATS) decortication was performed to remove the debris and right lower lung abscess. Later, fistulograpy from PTAD incidentally revealed HBF formation. We kept treating liver abscess by antibiotics without surgical intervention for the HBF. Repeated fistulography revealed the shrinkage of abscess and the remission of HBF. PTAD was then removed, and the patient had an uneventful follow-up after discharge.

Discussion :

HBF, defined as the abnormal communication between the liver parenchyma and the bronchial tree, may be a congenital or an acquired disease process. The acquired HBF is associated with hepatic hydatid cysts, hepatic abscesses, obstruction of the biliary tract, trauma or iatrogenic reasons like radiofrequency ablation (RFA), transcatheter arterial embolisation (TAE), and bile duct surgery.

Clinically, HBF presents with fever, dyspnea, purulent coughing, bilioptysis, and right upper quadrant abdominal pain and pleuritic pain. Diagnosis of HBF is usually established by the direct observation of contrast medium distributed in airways after the instillation through the hepatic drain tube. Treatment options of HBF include surgical excision, decompression of the obstructed biliary system, and direct closure fistula with transhepatic embolization with microcoils or endobronchial embolization.

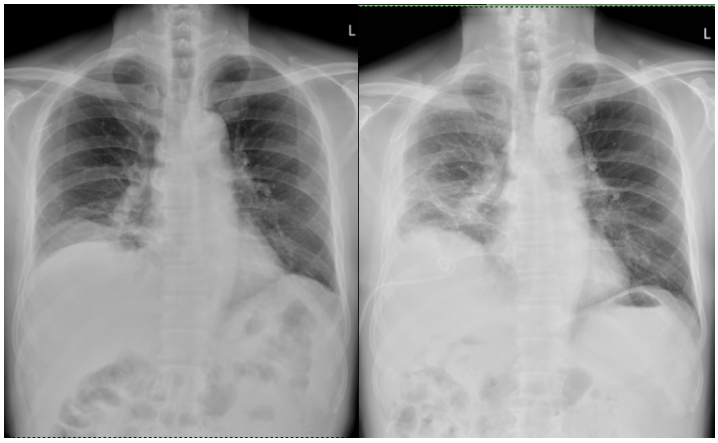
Conclusion :

We herein report a case of liver abscess with HBF formation, complicated with lung abscess and empyema. Due to the low incidence rate and high mortality, early diagnosis and intervention to prevent disease progression should be re-emphasized.

Reference

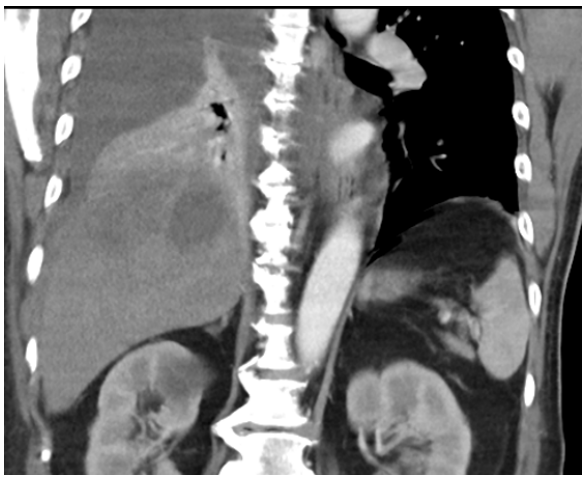
- Hepatobronchial Fistula: A Rare Complication of Liver Abscess
- Bronchobiliary fistula following radiofrequency ablation for liver metastases from breast cancer

[CXR] Admission & Discharge



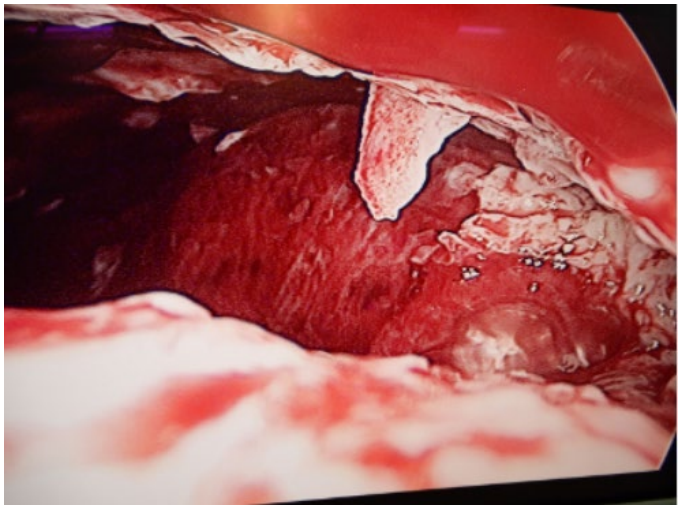
[Abdominal CT]

liver abscess about 8.9cm x 5.1cm in hepatic S7, right lower lung with abscess formation in the lower lobe.

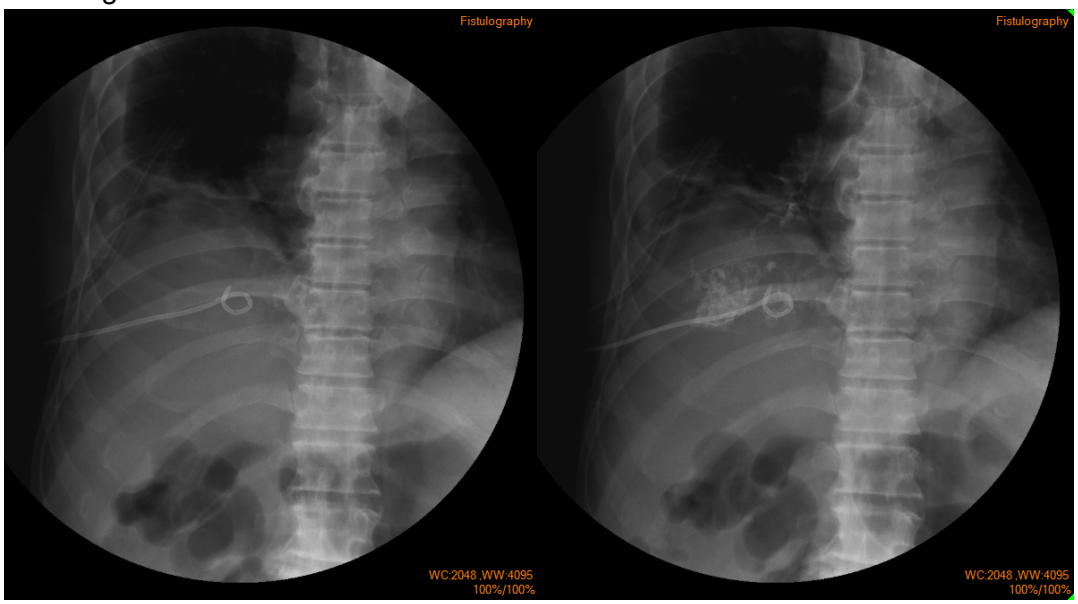


[VATS]

much pus and debris noticed



[Fistulography]
Favoring broncho-abscess fistula formation



[Abdominal echo at OPD follow up]
Irregular cystic lesion at S7, 2cm, consider residual of abscess s/p Tx.