



A “Fishy Cough” In an Elderly Male- A Case Report

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ABSTRACT

A FISHY cough is a cough productive of “fishy” tasting sputum. It is seen in multiple conditions like bronchiectasis, hepatobronchial fistula . A hepatobronchial fistula (HBF) is an abnormal anatomic connection between the liver parenchyma and the a part of the bronchial tree through a diaphragmatic pathway. It often arises as a complication of liver abscesses, hydatid cysts, or amoebiasis. HBF may be congenital or acquired. But the incidence has decreased due to the use of antibiotics in hepatic abscesses and surgical treatment of hydatid cysts.

I. CASE REPORT

A 72 year old male ,a toddy tapper, presented to our ER with a three week history of right upper quadrant abdominal pain, persistent cough with peculiar ‘fishy’ tasting sputum , intermittent episodes of hemoptysis, and low grade fever.

Patient is non diabetic and non hypertensive..He is a chronic toddy drinker and smoker. The patient gave a history of a liver abscess two months earlier. He was treated at outside hospital and recovered within 10 days with a drain . He was apparently asymptomatic for about a month. Later he slowly started developing abdominal discomfort and pain in the right upper quadrant. Pain was dull aching and causing mild discomfort which gradually increased and was disturbing his routine activities. He also gradually started developing cough ;which was aggravated on lying down supine and more during nights and disturbing his sleep. Cough is associated with dark coloured sputum which had a peculiar fishy taste. He decreased taking food because of pain abdomen accompanied with a bad taste on the

tongue. He also had low grade fever and generalized malaise. Patient also stopped climbing palm trees for toddy tapping which was his profession. Patient was apprehended as he is the breadwinner of his house..

On examination, his body temperature was 37.1C, blood pressure 120/80, pulse 120/min, Respiratory rate 30/min, oxygen saturation of 90% @room air. On auscultation bilateral air entry present with added sounds. Per abdomen showed mild distension of abdomen. Tenderness was elicited in the right upper quadrant of abdomen. He was admitted and baseline investigations sent and treated symptomatically.

Lab reports showed raised total leukocyte count of 20,000/microL, normal renal parameters, raised ESR and CRP, Liver function tests suggested only raised ALP 400U/L, mild rise in serum total bilirubin.

Chest X ray showed consolidatory changes in right lung.

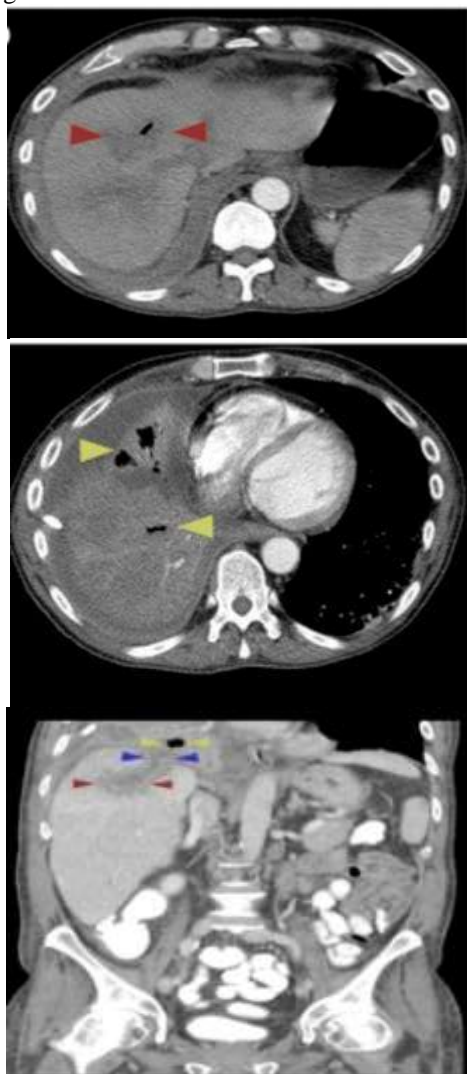
USG suggested an ill defined heteroechoic lesion in the right lobe of liver with no free fluid in peritoneum.



Suspecting a pleuro- pulmonary complication of hepatic abscess, CT chest and abdomen was done which showed consolidation of



right lower lobe of lung with multiple air filled abscesses and mild pleural effusion extending sub diaphragmatically through a 13mm defect in diaphragm and a thick walled loculated collection in right lobe of liver.



The final diagnosis of hepatobronchial fistula with ruptures liver abscess was made and ultrasound guided percutaneous drainage of abscess was done.

Patient was put on broad spectrum antibiotics and patient gradually improved and the cough was resolved and discharged on day 9. Follow up CT done to ensure complete resolution of abscess and fistula.

II. DISCUSSION

A hepatobronchial fistula (HBF) is an abnormal anatomic connection between the liver parenchyma and the a part of the bronchial tree through a diaphragmatic pathway. It often arises as

a complication of liver abscesses, hydatid cysts, or amoebiasis. HBF may be congenital or acquired. But the incidence has decreased due to the use of antibiotics in hepatic abscesses and surgical treatment of hydatid cysts.

Pleuropulmonary involvement following *E. histolytica* infection occur in upto 2—35% of liver abscess cases. Risk factors for development of pulmonary amebiasis include malnutrition, chronic alcoholism, and atrial septal defect with left to right shunt. Pleural manifestation may include development of sympathetic serous effusion. Liver abscess rupture into the pleural space results in an amebic empyema: rupture into lung can lead to consolidation, abscess formation, or a hepatobronchial fistula. Other mechanisms of pleural involvement include lymphatic spread from the liver through the diaphragm or hematogenous embolic spread from the liver or colon and inhalation of *E. histolytica* cysts.

Clinical manifestations include pain, cough, hemoptysis, and dyspnea. Cough is often productive with amebic pus to liver abscess contents with anchovy sauce appearance. the liver may not be palpable if the original abscess is high up in the right lobe or it has been decompressed by rupture. Pulmonary consolidation is common in the right lower and middle lobes. also can present as superior vena cava syndrome.

USG or CT guided drainage and correction of fistulous tract followed by IV antibiotics has great success rates.

Metronidazole 750 mg orally TID or Tinidazole 2 g once daily for 5 days is generally the drug of choice.

Sinogram or bronchogram remains the gold standard investigation. MRCP in addition gives information of biliary tree to plan for surgical intervention.

Mortality is around 15% in endemic areas.

III. CONCLUSION

We report a case of a 70year old male presented to our casualty with fishy tasting sputum along with right upper quadrant abdominal pain. This rose a suspicion for hepatobronchial fistula which is a very rare complication of rupture of hepatic abscess. It was drained and IV antibiotics given. Patient improved symptomatically and discharged. Prompt diagnosis and treatment reduces mortality and morbidity in such rare cases.

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