

Diagnostic Dilemma in Fever with Right Chest Pain

*Shiv Narayan Sahu, Rajshekhar Lohar**

Department of Internal Medicine, All India Institute of Medical Sciences, Rishikesh, Uttarakhand, India

***Corresponding author:** Dr. Rajshekhar Lohar, Department of Internal Medicine (ID Division), All India Institute of Medical Sciences, Rishikesh- 249203, Uttarakhand, India

Email: dr.rajshekharlohar3@gmail.com

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Case Vignette

A young man in his late twenties, labourer, presented with a 20-day history of low-grade intermittent fever, accompanied by right lower chest pain radiating to the right shoulder and anorexia. The pain worsened with deep inspiration and coughing. Over the past 7 days, he had developed a productive cough with yellowish expectoration. He denied any recent travel or known exposure to tuberculosis but reports occasional alcohol consumption. Physical examination revealed tenderness over the right upper quadrant and reduced breath sounds at the right lung base. Initial laboratory tests showed leucocytosis. A chest X-ray (figure 1) revealed a right-sided pleural effusion.



Figure 1: Chest Xray PA view

Ques. What is the next best investigation?

- A) Pleural fluid aspiration
- B) Sputum examination
- C) USG of chest and abdomen
- D) CECT chest and abdomen

Answer: C, USG of chest and abdomen

Comments:

Based on the history, initial pathology started near diaphragm and extended into further pleural involvement. Pleural fluid was analysed and suggested exudative in nature by modified Light's criteria, while Gram stain, culture, KOH mount, acid fast bacilli (AFB) staining, and cartridge-based nucleic acid amplification (CBNAAT) test were negative. Adenosine deaminase levels were low. An ultrasound and computed tomography of the abdomen revealed a single coalescing hypodense lesion in segment II of the right lobe of liver, consistent with an amoebic liver abscess (figure 2a). The serum amoebic *GalNac* antigen was positive at 36.6 (negative: < 9.0, equivocal: 9.0-11.0, positive: > 11.0), indicating *Entamoeba histolytica* infection. The patient was managed with percutaneous drainage of the abscess (figure 2b) and intravenous metronidazole 500 mg thrice a day with oral diloxanide furoate 500 mg thrice a day for 10 days.

Here, the learning point was unnecessary workup to reach final diagnosis. To be a steward, we need the right test for the right patient at the right time. Hence diagnostic pearl, subdiaphragmatic pathology including liver abscess should be considered in patients presenting with fever, anorexia, right sided lower chest pain radiating to the right shoulder, and with or without cough in the context of relevant epidemiology.^(1,2) Diagnostic point of care test is USG of chest and abdomen.



Fig-2a: Computed tomography of the abdomen

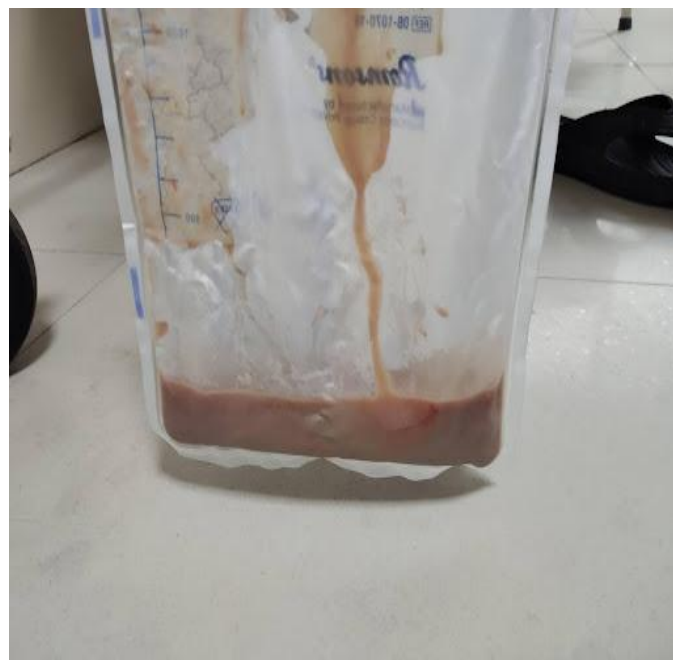


Fig-2b: Percutaneous drainage of the abscess fluid

References:

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