

## Research Article

### WHEN IN DOUBT- BE DOUBLY SURE

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**Abstract:** **Introduction:** Pleuritic pain can mimic right hypochondrium pain as both areas are adjoining area, thus sometimes leads to confusion in arriving at proper diagnosis. In certain cases, early stages of liver abscess and pneumonitis do not show changes in radiological investigations like chest x-ray and ultrasound abdomen. Thus, merit repeat of investigations to reach at proper diagnosis which is basis of definitive treatment. It helps in reducing morbidity and mortality associated with different kind of diseases. **Case report:** A twenty-seven-year-old male, a known occasional alcoholic and chronic smoker, presented with pain abdomen, vomiting and fever for last ten days. The pain abdomen was in right hypochondrium and fever was associated with rigor and chills. The vomiting was non-bilious and contained ingested food particles. There was no significant past medical history, with no previous abdominal surgeries or trauma. The general physical examination revealed mild pallor and patient was febrile to touch. Systemic examination including abdominal, cardiological, chest and neurological was essentially normal. Patient baseline chest x-ray and ultrasound abdomen was non-contributory whereas complete hemogram showed significant leucocytosis (TLC-21,000/mm<sup>3</sup>), mild anemia (Hb-10 gm%) with normal platelet count. Blood culture, urine complete examination and culture were sterile. All other biochemical investigations including liver function & renal function test, blood sugar, serum electrolytes, thyroid & lipid profile were in normal range. He was started empirically on broad spectrum antibiotics with proton-pump inhibitors and prokinetics, in addition to symptomatic treatment. Patient did not respond even after three days and continued to have fever and pain abdomen. Hence, again his history and examination was re-visited. Now, patient told that exactly he was having pain in right lower rib cage area, just above right hypochondrium. We had two differentials in mind, liver abscess or pneumonitis. Hence, ultrasonogram was repeated which was again found to be normal. The repeat chest x-ray which was done after a gap of three days showed a homogenous opacity occupying right lower lobe and middle lobe. The ultrasound chest showed some effusion in right lobe. Hence, diagnostic tap was tried for ruling out tuberculosis, in view of its strong prevalence in our country. The diagnostic tap for pleural fluid tap was dry, most likely it was minimal and was due to minimal Syn pneumonic effusion. Patient broad spectrum antibiotic was stepped up and he started responding to treatment. In next five days, his temperature, vomiting, pain chest disappeared and repeat chest x-ray partially cleared. He was continued with same antibiotics for next five days, after which pneumonic patch in chest x-ray cleared completely and he was discharged under haemodynamically stable condition. **Conclusion:** Every doctor in his lifetime deals with atypical cases where diagnostic dilemma occurs. Hence broad view with consideration of all the differential diagnosis should be considered. If in doubt, then repeating investigation

**Keywords:** Fever, Pain abdomen, Vomiting, Pneumonitis, Leucocytosis

## INTRODUCTION

Gallstone disease is one of the most common disorders of the Pneumonitis pain radiating to the right hypochondrium (Right Upper Quadrant of the abdomen) is a well-known phenomenon of referred pain. When the lower lobes of the lungs become inflamed in pneumonitis, the irritation can spread to the nearby diaphragm and the parietal pleura. The nerves that supply the diaphragm and abdominal wall share similar pathways in the spinal cord; hence brain can misinterpret the signals, making a lung issue feel like an abdominal issue. Right upper quadrant abdominal pain can mimic cholecystitis, cholelithiasis, hepatitis, liver abscess, pyelonephritis, nephrolithiasis, peptic ulcers, gastritis or costochondritis. Community acquired pneumonia might present with non-specific symptoms like fatigue, myalgia, anorexia, headache, as well as abdominal pain. [1] On the contrary, pneumonia is considered as the most frequent extra-abdominal cause of acute abdominal pain.

[2,3] The lack of association of pneumonia with abdominal pain in adult results in unnecessary delay in the diagnosis and administration of appropriate treatment. Community acquired pneumonia is a condition that should be taken into account in the differential diagnosis of abdominal pain in adults, in order to achieve immediate therapeutic intervention. [4] Pneumonia is considered a leading cause of hospitalization among both children and adults. Diagnosis is based on proper history taking, physical examination and identification of underlying lung disease, and recent travel and smoking history. The diagnosis should be suspected in any patient presenting with cough, fever, and chills. [5] Chest X-ray is the cornerstone in diagnosing pneumonia, however, 10% of patients with typical pneumonia symptoms and a normal chest X-ray will not develop symptoms until after 72 h have passed. [5] Marked abdominal symptoms in pneumonia may mimic an acute surgical abdomen

caused by appendicitis, cholecystitis, perforation, obstruction, and others. [6] Moreover, pneumonia may be associated with other abdominal symptoms such as nausea, vomiting, constipation, and flatulence, leading to further confusion in diagnosis. [7] There are no clear

studies discussing this correlation and only a few cases were found in the English literature reporting pneumonia mistaken for abdominal pathologies. [8]

## CASE REPORT

A twenty-seven-year-old male, a known occasional alcoholic and chronic smoker, presented with pain abdomen vomiting and fever for last ten days. The pain abdomen was in right hypochondrium and fever was associated with rigor and chills. The vomiting was non-bilious and contained ingested food particles. There was no significant past medical history, with no previous abdominal surgeries or trauma. The general physical examination revealed mild pallor and patient was febrile to touch. Systemic examination including abdominal, cardiological, chest and neurological was essentially normal. Patient baseline chest x-ray and ultrasound abdomen was non-contributory whereas complete hemogram showed significant leucocytosis (TLC-21,000/mm<sup>3</sup>), mild anemia (Hb-10 gm%) with normal platelet count. Blood culture, urine complete examination and culture were sterile. All other biochemical investigations including liver function & renal function test, blood sugar, serum electrolytes, thyroid & lipid profile were in normal range. He was started empirically on broad spectrum antibiotics with proton-pump inhibitors and prokinetics, in addition to symptomatic treatment. Patient did not respond even after three days and continued to have fever and pain abdomen. Hence, again his history and examination was re-visited. Now, patient told that exactly he was having pain in right lower rib cage area, just above right hypochondrium. We had two differentials in mind, liver abscess or pneumonitis. Hence, ultrasonogram was repeated which was again found to be normal. The repeat chest x-ray which was done after a gap of three days showed a homogenous opacity occupying right lower lobe and middle lobe. The ultrasound chest showed some effusion in right lobe. Hence, diagnostic tap was tried for ruling out tuberculosis, in view of its strong prevalence in our country. The diagnostic tap for pleural fluid tap was dry, most likely it was minimal and was due to minimal synpneumonic effusion. Patient broad spectrum antibiotic was stepped up and he started responding to treatment. In next five days, his temperature, vomiting, pain chest disappeared and repeat chest x-ray partially cleared. He was continued with same antibiotics for next five days, after which pneumonitic patch in chest x-ray cleared completely and he was discharged under haemodynamically stable condition.



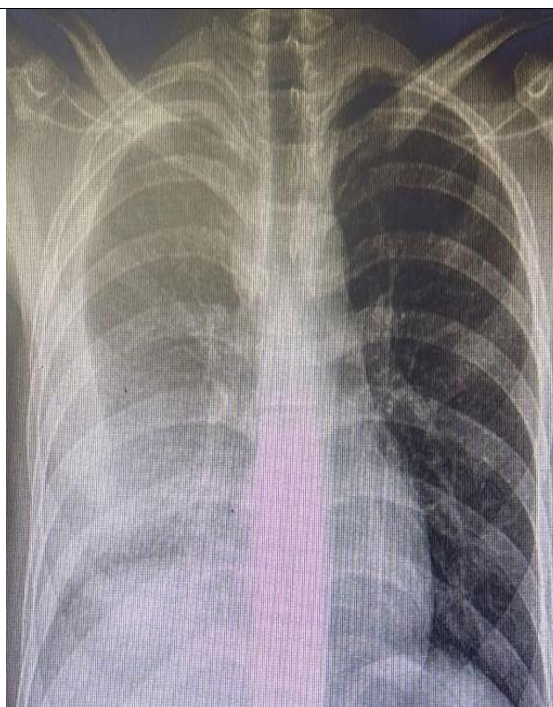
Figure 1- Normal Chest X-ray on admission



Figure 2- Pneumonitic Patch after 72 hours



**Figure 3- Partial clearing of Patch on Day 7**



**Figure 4- Complete resolution on Day 14**

## CONCLUSION

Every doctor in his lifetime deals with atypical cases where diagnostic dilemma occurs. Hence broad view with consideration of all the differential diagnosis should be considered. If in doubt, then repeating investigation after a gap of sometime can be rewarding, as in our case where repeat chest x-ray solved the problem.

## CONFLICT OF INTEREST

The authors declare there was no conflict of interest and no financial support was taken for it.

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