

UNILATERAL PULMONARY OEDEMA – THE FORGOTTEN DIAGNOSIS IN UNILATERAL OPACITIES OF LUNGS

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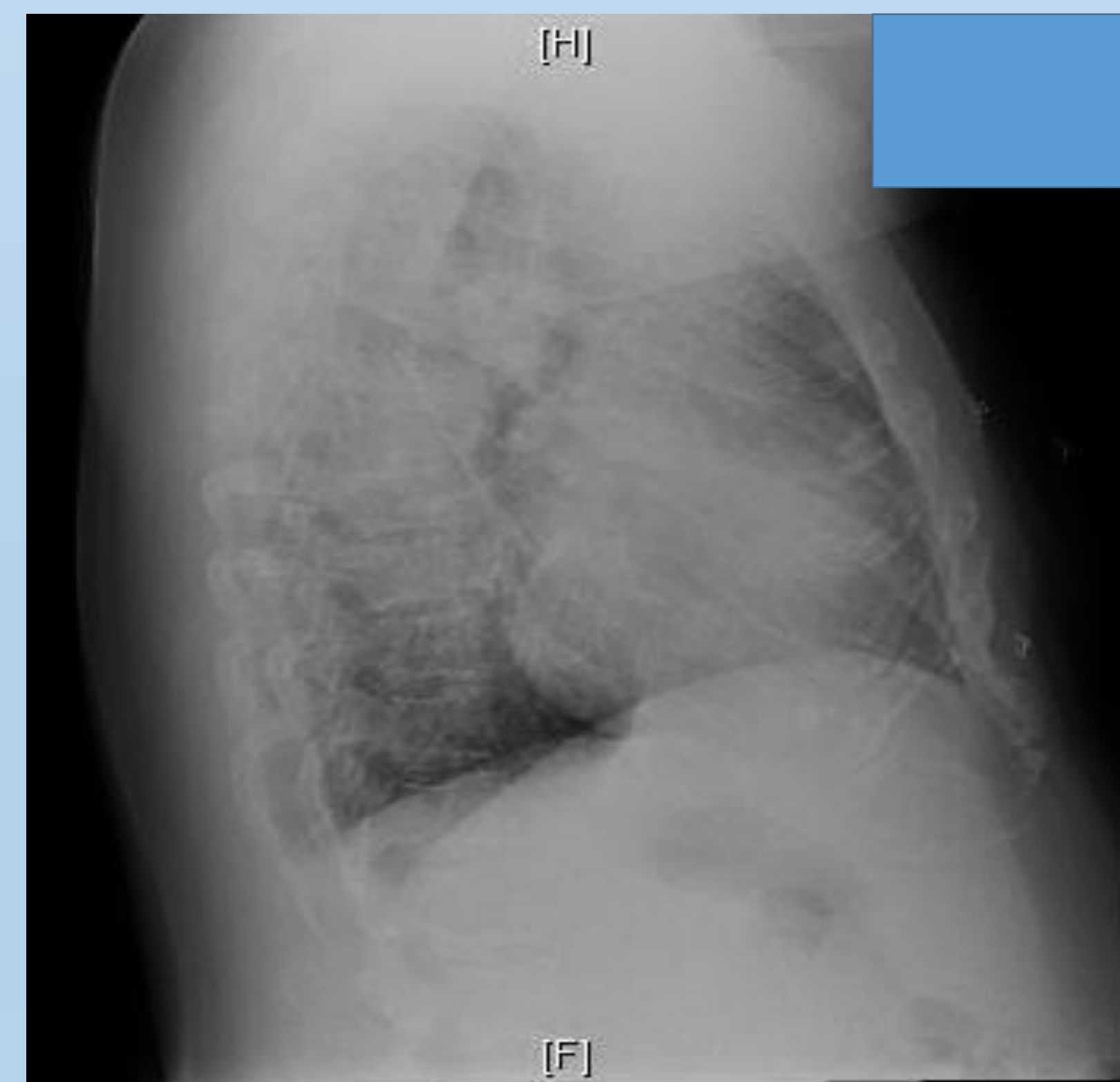
Introduction

Unilateral pulmonary edema (UPE) is a rare but known clinical entity, which has been mainly described in severe mitral regurgitation or ipsilateral pathology of pulmonary veins. Misdiagnosis often occurs due to similar clinical presentations and unusual chest X-ray findings.

Case report

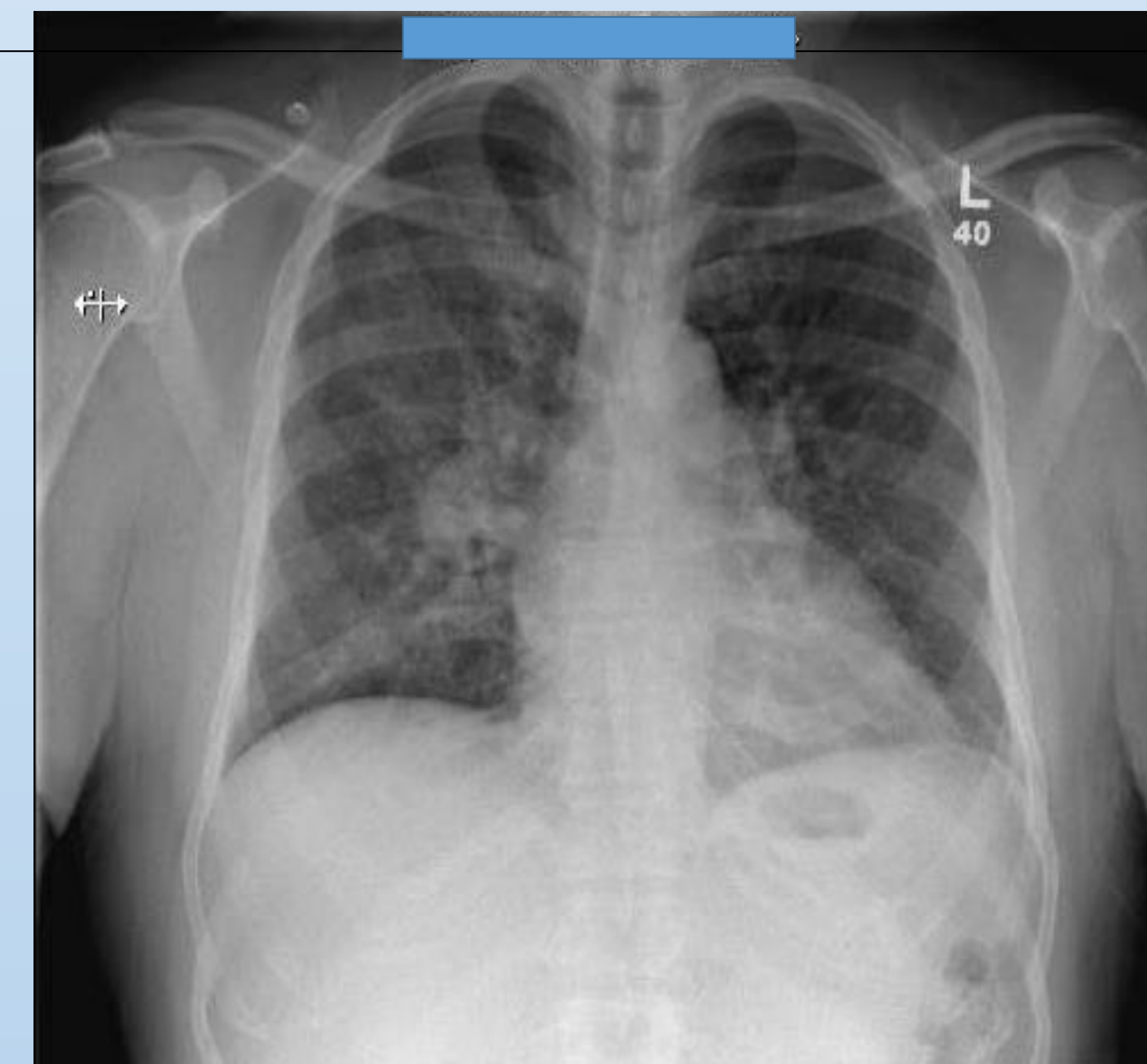
Initial Presentation: A 59-year-old male presented with cough associated with scant mucoid sputum, shortness of breath and pleuritic chest pain of one day duration. He denied fever or any other complaints. He reported that his son was having symptoms of upper respiratory infection for 1 week. Past history was significant for diabetes mellitus, hypertension and noncompliance with medications or vaccinations. Coronary angiography done 1 year prior to presentation revealed non-obstructive coronary artery disease. On examination, blood pressure was 195/91, heart rate 88 bpm, respiratory rate 22/min, temperature 99°F and oxygen saturation 90-92%, respectively. There were bilateral crackles on auscultation, more pronounced on the right side. Heart sounds were unremarkable.

Initial Routine Investigations : Chest X Ray revealed alveolar opacities on right side with bilateral peri-hilar interstitial changes



Routine Complete blood count and basic metabolic panel were unremarkable except for mild leukocytosis of 12.1. EKG showed 1 st degree AV block with non specific ST changes. First troponin measured was 0.091 ng/ml

Course in the Hospital :Initial diagnosis of community-acquired pneumonia was made and the patient was started on antibiotics (azithromycin and ceftriaxone). Antihypertensive medications were adjusted. No diuretics were given. In the course of two days, patient's symptoms resolved. Further testing showed elevated BNP of 3340 pg/ml. The influenza rapid antigen and the *Streptococcus pneumoniae* and *Legionella* urine antigens were negative. The blood cultures failed to show any pathogens. Repeat chest X ray after 3 days showed complete resolution of initial findings. Echocardiography was consistent with an ejection fraction of 50% and a grade 2 diastolic left ventricular dysfunction. Moderate concentric hypertrophy of myocardium was evident. Final diagnosis was UPE in the setting of heart failure with preserved ejection fraction (HFpEF). Patient was discharged to follow-up with cardiologist.



Conclusion

A high index of suspicion is essential for diagnosing Unilateral Pulmonary Oedema when evaluating asymmetric opacities on chest X-ray. Most case reports were described on the right side as in our case. This has been explained by poorer lymphatic drainage of the right lung or prolonged resting on one side. Absence of fever, rapid onset (and resolution) of symptoms and elevated BNP are suggested indicators of a cardiac disease rather than pneumonia and may help in avoiding delay of treatment

References

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