Type 1 spontaneous diaphragmatic rupture
An unusual cause of chest pain and dyspnoea

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Introduction

Spontaneous rupture of the diaphragm (SRD) is a rare condition that often presents with chest pain. We describe a patient with SRD who presented with chest pain, dyspnoea, and radiographic appearances of a left-sided pleural effusion.

Case

A 39-year-old construction manager presented with sudden-onset left sided chest pain that had woken him from sleep five days previously. He described it as severe, worse on lying flat, and associated with new-onset dyspnoea. Physical examination and subsequent chest radiography was suggestive of a moderate-size left pleural effusion (Figure 1), which could not be confirmed with ultrasonography. Thoraco-abdominal computed tomographic imaging performed after the administration of oral and intravenous contrast material revealed a large diaphragmatic deficit with thoracic herniation of retroperitoneal fat, omentum, and the tip of the pancreatic tail (Figure 2). The patient subsequently had elective surgical repair for persistent symptoms.

Discussion

Traumatic diaphragmatic rupture is well described following blunt abdominopelvic injury, but spontaneous rupture is exceedingly rare, with an incidence of 1% of all diaphragmatic ruptures.1 Usual presenting features of SRD include chest or abdominal pain, vomiting, and dyspnoea. SRD is classically subdivided into type 1 (no involvement of chest wall) and type 2 (herniation of abdominal content through diaphragm and chest wall).2

Our case anecdotally strengthens the importance of pleural ultrasonography to confirm radiologic appearances of pleural effusion.

Conclusion

Consider SRD in patients with acute symptoms and clinical and radiologic features of pleural effusion.

References


Written consent was received from the patient for reproduction of the cases and images.