A delayed presentation of traumatic diaphragmatic hernia: an unusual cause of dyspnea

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Diaphragmatic hernias generally fall into two categories congenital or acquired, with the latter often occurring post-trauma. Solitary traumatic diaphragmatic injuries are rare, accounting for less than 1% of all traumatic injuries. These injuries are frequently missed during the initial evaluation, highlighting the necessity for a high index clinical suspicion, as delayed diagnosis correlates with an increased risk of herniation and subsequent gastrointestinal tract obstruction or strangulation. This report presents a case of a traumatic hiatal diaphragmatic hernia incidentally discovered in a patient presenting with dyspnea. A 25-year-old woman with a history of deep vein thrombosis, pulmonary embolism (completed anticoagulation), and degenerative spine changes presented to the ED with dyspnea, palpitations, nausea, and vomiting. She had been in a motor vehicle accident 1 week prior, experiencing headache and generalized body pain but did not seek medical attention at the time. Over the past 2 days, she developed non-exertional, non-positional dyspnea with episodic palpitations, nausea, and non-bloody vomiting. On examination, she was hemodynamically stable, with normal heart and lung sounds. There was tenderness over the cervical and lower thoracic vertebrae, but the rest of the examination was unremarkable. ECG showed sinus tachycardia with an S1Q3T3 pattern. Laboratory workup revealed a mildly elevated D-dimer, with other parameters within normal limits. Chest X-ray was unremarkable. Given her elevated Wells score (6), a CTPA was performed, which was negative for pulmonary embolism but incidentally revealed a left-sided hiatal diaphragmatic hernia with herniation of more than 50% of the stomach into the thoracic cavity, with potential for volvulus, in addition to a new compression fracture involving the T11 vertebral body. Further imaging showed no other acute injuries. The patient was admitted for surgical repair after consultation with thoracic and general surgery. However, she later chose to leave against medical advice and underwent the repair at another institution. This case underscores an unusual etiology of dyspnea, emphasizing the potential for major diagnoses to be easily missed, especially in busy ED settings. From emergency medicine, maintaining a broad differential diagnosis is crucial, even in obvious straightforward presentations, to anticipate unexpected diagnosis, and to address them appropriately.

Keywords:
Traumatic diaphragmatic hernia, hiatal hernia, delayed diagnosis, dyspnea, volvulus.