

Mechanical Ventilation Induced Barotrauma Complicated with Pneumopericardium

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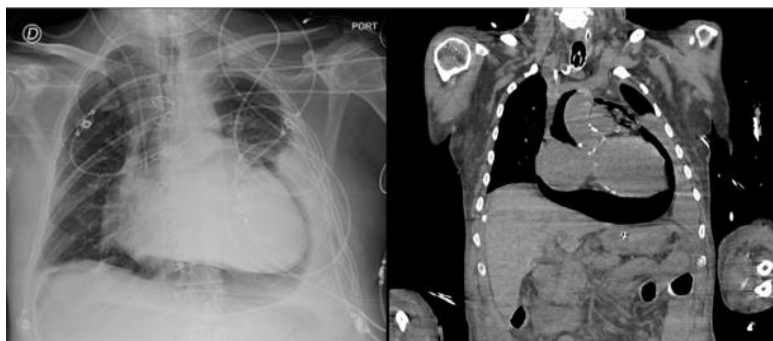
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1. Case Report

A 58-year-old patient affected by chronic thromboembolic disease and factor V Leiden, permanent atrial fibrillation and constrictive pericarditis complicated with congestive hepatopathy was admitted to our institution for elective pericardiectomy. In the postoperative period, he presented with upper gastrointestinal bleeding that was treated endoscopically with ethoxysclerol. During the discontinuation of anticoagulation therapy, he presented mesenteric microembolisms that required laparotomy and total colectomy and splenectomy. Subsequently, he presented distributive shock and developed acute lung injury with low pulmonary compliance during mechanical ventilation. In this context, he presented hemodynamic worsening, chest x-ray was performed (Figure 1).

Pneumopericardium was observed and attributed to mechanical ventilation induced barotrauma with air migration from pleural to pericardial space. A CT scan was performed and excluded the presence of diaphragmatic fistula as a possible alternative etiology, it also helped to identify the optimal anatomical puncture access (Figure 2). This complication was treated by pericardiocentesis through a left parasternal access and placing a pericardic pig-tail catheter connected to aspiration. We suggest this anterior-parasternal, rather than a classic subxiphoid access for pneumopericardium drainage, since this approach facilitates easier puncture of the air chamber, which naturally tends to be distributed ahead when the patient remains supine.

Figures



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