

Spontaneous Pneumomediastinum

Pneumomediastino Espontâneo

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Case

A 31-year-old male athlete presented with acute chest pain that was aggravated with swallowing after completing a marathon. Physical examination findings and his vital signs were normal. Electrocardiography revealed sinus rhythm, an incomplete right bundle block, and a negative T wave in V1-V2. A blood analysis showed normal D-dimer values and a slightly elevated troponin-I level (maximum at 72 hours: 0.52 ng/mL; normal, <0.07 ng/mL) with fluctuations. Chest X-ray, echocardiography, and coronary angiography findings were normal. Cardiac computed tomography (CT) revealed small gas collections on the superior and middle mediastinum compatible with spontaneous pneumomediastinum (SP). (Figures 1 and 2) SP is rare, usually benign, and often underdiagnosed. Intense physical exercise

is a recognized cause. Cardiac CT assesses the extension, causative factors, and pathologies and discloses the diagnosis of SP when chest X-ray findings are normal.

Authors' contributions

Research creation and design: Gonçalves L, Pires I, Santos J; Data acquisition: Gonçalves L, Santos J, Correia J; Data analysis and interpretation: Gonçalves L, Moreira D, Correia J; Manuscript writing: Gonçalves L Critical revision of the manuscript: Gonçalves L, Pires I, Moreira D.

Conflict of interest

The authors have declared that they have no conflict of interest.

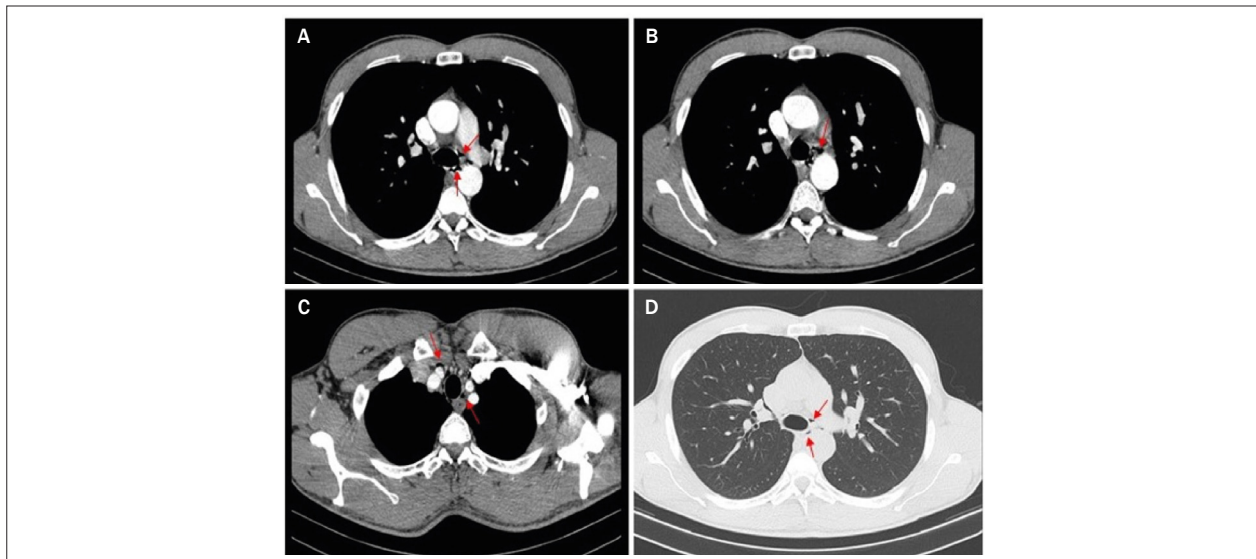


Figure 1 – Contrast cardiac computed tomography image of the lung window (right inferior image) axial view revealed small amounts of gas on the superior and middle mediastinum (arrows).

Keywords

Chest pain; Computed Tomography; Pneumomediastinum.

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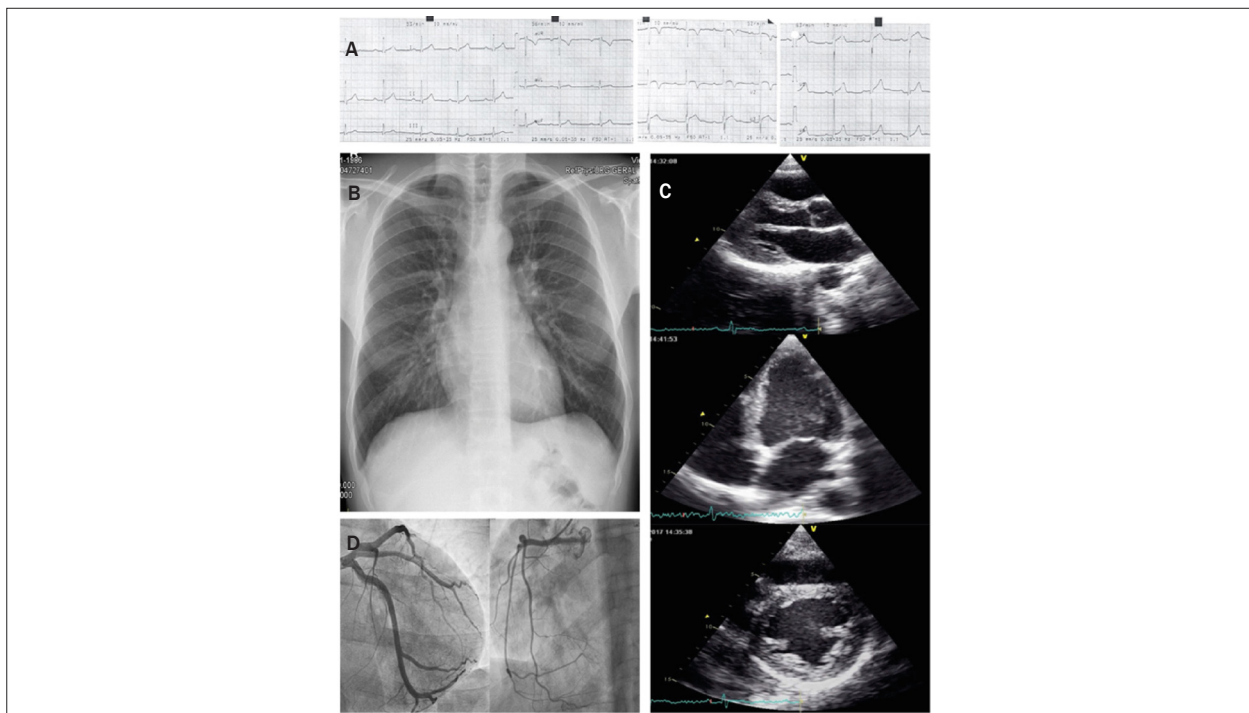


Figure 2 – A – Standard 12-lead electrocardiogram obtained in the emergency department revealed normal sinus rhythm, an incomplete right bundle block, and T wave inversion on V1-V2. B – Chest X-ray posteroanterior view findings were normal. C – Transthoracic echocardiogram of the parasternal long-axis (superior), apical four chambers (medium), and parasternal short-axis (inferior) showed no alterations. D – Left and right coronary angiogram revealed no coronary heart disease.