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Cardiovascular

Isolated shoulder pain secondary to pacer lead perforation

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1 | PATIENT PRESENTATION

A 75-year-old male with a history of coronary artery disease status post remote coronary artery bypass graft placement presented to the emergency department with right-sided shoulder pain with radiation up to his neck and back. About 15 minutes before his symptoms, the patient picked up a heavy flooring piece. He denied use of anticoagulation. On arrival, the patient was in moderate distress with a blood pressure of 217/125 mmHg. His musculoskeletal exam was unremarkable. He had a white blood count of 24,300/μL. Computed tomography (CT) chest with contrast was significant for moderate hemopericardium with active contrast extravasation (Figures 1 and 2). The patient was started on a nicardipine drip with a target systolic blood pressure of 120–140 mmHg. He was admitted to the intensive care unit (ICU) for monitoring and ultimately discharged after stable repeat imaging.

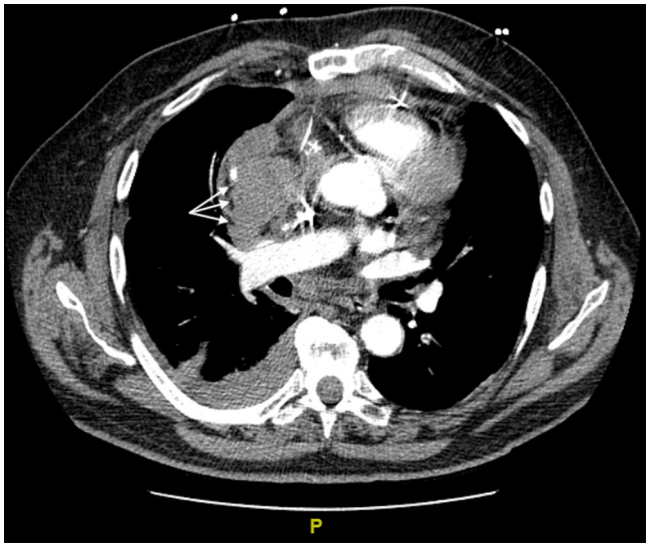

FIGURE 1 Contrast-enhanced computed tomographic scanning in the coronal plane showed a 6 × 8 × 4 cm moderate sized mediastinal hematoma at the right superolateral aspect adjacent to the ascending aorta and anterior to the superior vena cava (arrow). P = posterior

2 | DIAGNOSIS: ATRAUMATIC MEDIASTINAL HEMATOMA

Mediastinal hematomas are life-threatening pathologies often caused by thoracic trauma, ruptured aneurysms, and recent iatrogenic insult.[1–3] Because of compression of structures within the thoracic cavity, a mediastinal hematoma may initially present with non-specific features, such as chest pain, shortness of breath, and dysphagia.[1] Suspicion of mediastinal hematomas should direct simultaneous assessment for associated life-threatening sequelae, such as acute effusion resulting in cardiac tamponade, aortic dissection, and airway compromise from local compression.[1–4]

Our patient's presentation was complicated by referred pain and a lack of typical risk factors, such as recent cardiac intervention and anticoagulation use.[1–2,5] However, our patient had a significant Valsalva, likely resulting in vascular trauma by pacer leads.[1,6] A hypertensive patient with radiating shoulder pain, significant reactive leukocytosis, recent Valsalva, and a history of cardiac instrumentation may warrant CT imaging that will also assess for other mediastinal

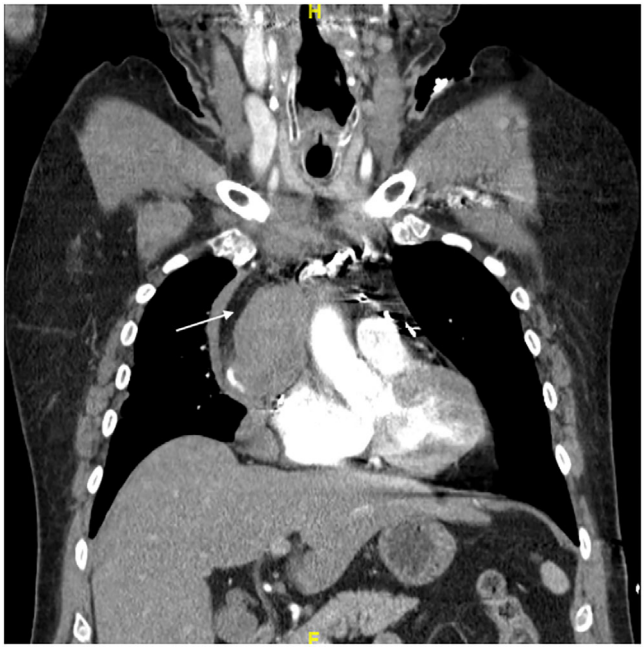

FIGURE 2 Contrast-enhanced computed tomographic scanning in the axial plane showed a mediastinal hematoma (arrow) with 2 foci of active extravasation (blue arrows) and a small right pleural effusion. H = head, F = foot

emergencies, such as aortic dissection, esophageal hematoma, and Boerhaave syndrome.[1,2,4,5] Management of mediastinal hematomas involves blood pressure control to hamper hematoma enlargement and coordination with cardiothoracic surgery.[7]

DISCLAIMER

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