Erroneous aortic arch placement of a transvenous pacemaker

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A 53-year-old patient arrived at the emergency room with dyspnoea. He had undergone pacemaker positioning a week earlier. X-ray and computed tomography (CT) examination (Fig. 1) showed that the device was erroneously positioned into the aortic arch. The device was removed with thoracoscopic intervention to manage eventual aortic bleeding and was re-positioned in the right subclavian vein.

Fig. 1. (A) The chest X-ray showed an apical left pneumothorax with the pacemaker wires that appear positioned too low compared to the left clavicle (arrow). (B) CT examination reveals the wires penetrating into the aortic arch and also the distal extremity of the atrial wire appears erroneously positioned into the left ventricle (arrowhead). (C) Volume-rendering reconstruction shows the wires lying anterior the left subclavian artery and their access into the aortic arch (arrow). (D) Post-surgical chest X-ray demonstrated a well-positioned device into the right subclavian vein.