


CARDIOVASCULAR FLASHLIGHT

doi:10.1093/eurheartj/ehu416
Online publish-ahead-of-print 3 November 2014

Late intracardiac orthopedic wire migration presenting as tamponade and stroke

Christophe Hédon1,2*, Ziad Khoueiry1,2, Marine Verges1, and Jean-Luc Pasquie1,2

1Department of Cardiology, CHU Arnaud de Villeneuve, 371 Avenue du Doyen Gaston Giraud, Montpellier, France; and 2INSERM U1046, 371 Avenue du Doyen G. Giraud, Bât. Crastes de Paulet, Montpellier, France

* Corresponding author. Tel: +33 677586814; Fax: +33 467336230; Email: chris.hedon@gmail.com

A 79-year-old woman was admitted for hypotension and confusion. Her past-medical history was mainly an osteosynthesis of the left humeral head 2 years before. The physical examination revealed haemodynamic failure and acute neurological disorders with monocular vision loss and left arm paralysis. Transthoracic echocardiogram in emergency found a pericardial effusion necessitating a puncture without delay. Brain CT scan showed several recent cardioembolic strokes. Chest X-ray (Panel A) and thoracic CT scan revealed an intracardiac linear metallic foreign body, perforating the inter-atrial septum (Panels B and C). Transthoracic (Panel D) and transoesophageal echocardiograms confirmed the presence of a metallic nail through the inter-atrial septum associated with the presence of a left atrium thrombus. Comparison of the X-ray to the one realized after the orthopedic surgery showed evidence of migration of a wire (Panels E and F). Finally, a cardiac surgical intervention allowed to extract the pin (Panels G (1: orthopedic pin; 2: atrial thrombus) and H).

Metallic wires are frequently used to perform osteosynthesis. A serious rather unusual complication is the migration to the heart cavities. In this report, we described the case of a patient who experienced migration of a wire from the left humeral head to the right atrium and across the inter-atrial septum, 2 years after orthopedic surgery. This event was complicated by tamponade and thrombosis in the left atrium responsible for stroke. Although some cases of cardiac tamponade due to wire migration have previously been reported, it is to our knowledge the first report of such association.