Cement embolism during a kyphoplasty

Eva García-Fontán, Montserrat Blanco Ramos* and Gerardo Andrés Obeso Carillo

Department of Thoracic Surgery, Vigo University Clinical Hospital, Vigo, Spain

* Corresponding author. Department of Thoracic Surgery, Vigo University Clinical Hospital, c/ Pizarro 22, 36204 Vigo, Spain. Tel: +34-986816000; e-mail: montseblancoramos@hotmail.com (M. Blanco Ramos).

Received 2 November 2012; received in revised form 9 December 2012; accepted 27 December 2012

Keywords: Cement leakage • Kyphoplasty • Cement embolism

A 69-year old man underwent a kyphoplasty and short pedicle screw fixation due to a thoracic (T8, T11 and T12) burst fracture. The patient was asymptomatic and a computed tomography (CT) showed a foreign body into the azygos vein and the right pulmonary artery that corresponded to a cement embolism (Figs 1 and 2).

Figure 1: Postoperative lateral chest X-ray showing the excellent alignment following short fixation, a chest tube to drain a pleural effusion, the cement leakage (arrow) and the vertebral reinforcement material (asterisk). The mechanism of the embolism was probably a vascular entry of cement during high pressure inflation to get the compressed vertebral separated.

Figure 2: CT image: we can observe a right pleural effusion with a filiform foreign body into the azygos vein, pulmonary artery and its segmentary branch. The vascular course of the embolized material was azygos vein, superior vena cava, right atrium, right ventricle and right pulmonary artery.