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Images in Clinical Rheumatology

Asymptomatic Bilateral Central Pulmonary Embolism Following Multiple Cement Vertebroplasties[☆]



Embolismo pulmonar central bilateral asintomático por cemento tras vertebroplastia múltiple

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We present the case of an 84-year old patient with a personal history of auricular fibrillation and colorectal adenocarcinoma who underwent a vertebroplasty of 5 lumbar vertebrae due to painful osteoporotic fractures. The patient recovered from this procedure with no serious complications and was discharged on the same day as the multiple vertebroplasties were performed. Three months after the vertebroplasty (Fig. 1A), due to the patient's oncological history, a follow-up CT scan was performed which showed multiple acrylic cement emboli in both main pulmonary arteries, extending to the lobar arteries of both lungs (Fig. 1B and C). Due to the absence of any symptoms and the fact that the patient took anticoagulant drugs for his auricular fibrillation a conservative treatment approach was taken for the cement emboli (CE), with the patient remaining stable and with no dyspnoea or chest pain.

Radiologic demonstration of CE is increasingly common due to the progressive ageing of the population, for whom vertebroplasty

with cement has become a relatively safe form of treatment and to the increasingly high use of CT scans. Although initially the rate of CE was described as being under 5% and affected almost exclusively the peripheral pulmonary arteries,¹ the latest reviews have shown that this phenomenon affects 23% of patients who have undergone vertebroplasty and that it may involve more central arteries² (as in our case).

Ethical Liabilities

Protection of people and animals. The authors declare that for this research no experimentation has been carried out on human beings or animals.

Data confidentiality. The authors declare that they have adhered to the protocol of their centre of work on the publication of patient data.

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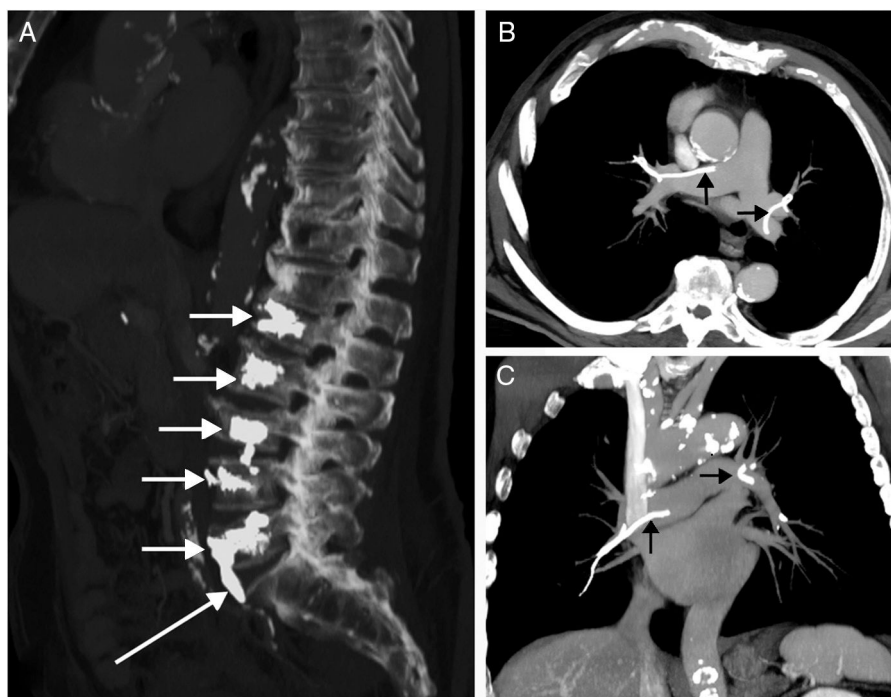


Fig. 1. (A) CT sagittal view where one may observe the cement material in the 5 vertebral bodies (short arrows). Note the presence of a cement leakage from the fifth vertebra towards the right common iliac vein (long arrow); this leakage is probably responsible for the cement emboli in the pulmonary arteries. (B and C) Axial (B) and coronal (C) images of CT (maximum intensity projection) with very high density lineal repletion defects (arrows) in the lumen of the main pulmonary arteries and which represent the cement material.

Right to privacy and informed consent. The authors declare that no patient data appear in this article.

Conflict of Interests

The authors have no conflicts of interest to declare.

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