Asymptomatic pulmonary cement embolism after vertebroplasty: a case report

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INTRODUCTION

Vertebroplasty is a commonly performed technique in the management of vertebral compression fractures. However, it is associated with some serious adverse effects. Most complications are related to the leakage of bone cement (polymethylmethacrylate) into the spinal canal or the perivertebral venous system.

CASE DESCRIPTION

A 74-year-old lady was subjected to percutaneous vertebroplasty for osteoporotic compression fractures on T11, T12, L1 and O4. The procedure was uneventful (Image 1).

One year later, on routine chest radiograph, a high density material was found in branches of pulmonary artery. The same material was also found in the perivertebral venous system and had identical density with the bone cement present in the treated vertebrae (Image 2).

Findings were confirmed by chest computed tomography. No specific medical treatment was given (Image 3).

CONCLUSIONS

➢ Biologic cement leakage is a frequent adverse event of vertebroplasty, with pulmonary cement embolism occurring in about one-quarter of the patients.

➢ In most cases it remains asymptomatic.

➢ However, close monitoring and early recognition of this clinical situation might be critical for some patients.

References