

## Unexpected finding in computed tomographic pulmonary angiography

THIAGO HORTA SOARES<sup>1</sup>, MARCOS DE BASTOS<sup>2</sup>, WANDERVAL MOREIRA<sup>3</sup>, SUELY MEIRELES REZENDE<sup>4</sup>

<sup>1</sup> Hospital Mater Dei; Department of Internal Medicine, Grupo de Estudo da Hemostasia e Trombose (GETHe), Faculty of Medicine, Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, MG, Brazil

<sup>2</sup> Instituto de Previdência do Estado de Minas Gerais, Department of Internal Medicine, GETHe, Faculty of Medicine, UFMG, Belo Horizonte, MG, Brazil

<sup>3</sup> Hospital Mater Dei, Belo Horizonte, MG, Brazil

<sup>4</sup> Department of Internal Medicine, GETHe, Faculty of Medicine, UFMG, Belo Horizonte, MG, Brazil

Study conducted at Hospital Mater Dei, Belo Horizonte, MG, Brazil

**Correspondence to:** Thiago Horta Soares – Hospital Mater Dei, Departamento de Clínica Médica, Rua Gonçalves Dias, 2700, Belo Horizonte, MG, Brazil, CEP: 30140-092, Phone/Fax: +55 31 3339-9242 – hortasoares@gmail.com

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A 78-year-old woman was admitted to the hospital with nausea and abdominal pain. She had a history of lumbar fracture secondary to corticosteroid use and underwent an uneventful vertebroplasty at L1-L2 three months before admission. Laboratory tests and an abdominal computerized tomography showed acute pancreatitis.

Three days later, she complained of dyspnea and had a transient thoracic pain. No hemodynamic instability was detected. A thorax computed angiography was performed, which showed dense intravascular masses located inside the arteries for the right superior, inferior, and middle lobes, suggestive of pulmonary cement emboli (PCE) (Figure 1). Respiratory symptoms disappeared and no relation was found between PCE and actual symptoms. The patient was submitted to a cholecystectomy, and recovered well.

PCE is a possible systemic complication associated with vertebroplasty or kyphoplasty<sup>1</sup>. The reported prevalence (4.6% to 23%) may be an underestimation, as PCE

screening is not routinely undertaken<sup>2-3</sup>. Cement emboli may reach the pulmonary circulation through the perivertebral venous system, the azygos and cava veins<sup>1</sup>. Its clinical presentation varies from an asymptomatic picture to sudden death<sup>1-3</sup>. The management of PCE is not well established. No treatment is indicated in asymptomatic patients, but surgical removal, heparinization, or anticoagulation with vitamin K antagonists may be considered<sup>4</sup>.

It is suggested that PCE may be prevented by appropriate patient selection for surgery, improved surgical techniques, and good image screening by fluoroscopy during the procedure<sup>1-4</sup>.

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**Figure 1** – Thorax computed angiography showing dense intravascular masses.