**Clinical History:**

A patient with a history of a resected melanoma in the right thigh underwent a follow-up chest X-ray after six months.

**Imaging Findings:**

The chest X-ray showed a nodular opacity laterobasal in the left lower lung zone (Fig. 1). A previous chest CT demonstrated a subpleural calcified lesion of 0.7 cm posterior in the dependent portion in the left lower lung zone (Fig. 2). This calcification was initially thought to represent a calcified granuloma and was not seen on the chest X-ray. To exclude lung metastasis a new CT of the thorax was performed. This revealed that the subpleural calcification was in a different location in comparison with the previous CT (Fig. 3). There was no metastatic disease.

**Discussion:**
Thoracolithiasis is defined as a freely mobile nodule in the pleural cavity with or without calcification [1]. Other names include ‘pleural stone’, ‘intrathoracic calculus’ and ‘pleurolith’ [2]. Thoracolithiasis is rare (reported incidence of less than 0.1 %) [3]. There is no known age or sex predilection [2]. The stones are more frequent on the left than the right [1-3]. Stone formation is thought to originate from necrosis of the pericardial fat [3].

Thoracolithiasis is a benign entity that does not require surgical intervention [3]. Radiologic findings are important in order to differentiate from other, potentially, harmful lesions. CT plays the most central role in the diagnosis, it helps confirm calcific density when the density of the nodule is indeterminate on chest X-ray [2]. The size of the stones range from 5 to 15 mm and occur more frequently in the left pleural cavity [1]. The stones are usually ovoid and smoothly marginated [3]. Since they are mobile, location varies on serial imaging [4]. They are most often found in the dependent part of the pleural cavity on the surface of the diaphragm, on the chest wall adjacent to the lower lung, abutting the left cardiac margin, or near the para-spinal space [1]. The lesions may or may not be calcified and can demonstrate variable patterns of calcification including spotty and central, peripheral ‘eggshell’ and diffuse and homogeneous [5, 6, 7]. Since they often contain central fat, pleural stones may have central low density [2].

In conclusion thoracolithiasis is a rare benign pulmonary entity that should be differentiated from other lung pathology based on characteristic radiologic findings, including extrapleural location and demonstration of mobility on serial imaging.

Written informed patient consent for publication has been obtained.

**Differential Diagnosis List:** Thoracolithiasis (demonstration of mobility on serial imaging confirms diagnosis), Calcified granuloma, Hamartoma, Metastatic disease

**Final Diagnosis:** Thoracolithiasis (demonstration of mobility on serial imaging confirms diagnosis)

**References:**


**Description:** Chest X-ray in PA position shows an ovoid nodular opacity laterobasal in the left lower lung zone (arrow). **Origin:** Jonckheere S, Department of Radiology, UZ Gent, Gent, Belgium.
Figure 2

a

Description: A previous chest CT scan shows a calcified lesion near the left paraspinal space. Soft tissue window. Origin: Jonckheere S, Department of Radiology, UZ Gent, Gent, Belgium.

b

Description: A previous chest CT scan shows a calcified lesion near the left paraspinal space. Lung window. Origin: Jonckheere S, Department of Radiology, UZ Gent, Gent, Belgium.
**Description:** Sagittal plane. Lung window. **Origin:** Jonckheere S, Department of Radiology, UZ Gent, Gent, Belgium.
**Description:** Coronal plane. Soft tissue window. **Origin:** Jonckheere S, Department of Radiology, UZ Gent, Gent, Belgium.
Description: A new chest CT scan shows the subpleural calcification on a different location, confirming mobile thoracolithiasis. Soft tissue window. Origin: Jonckheere S, Department of Radiology, UZ Gent, Gent, Belgium.
Description: A new chest CT scan shows the subpleural calcification on a different location, confirming mobile thoracolithiasis. Lung window. Origin: Jonckheere S, Department of Radiology, UZ Gent, Gent, Belgium.
Description: Sagittal plane. Lung window. Origin: Jonckheere S, Department of Radiology, UZ Gent, Gent, Belgium.
**Description:** Coronal plane. Soft tissue window. **Origin:** Jonckheere S, Department of Radiology, UZ Gent, Gent, Belgium.