

Unusual diagnosis hidden by poorly controlled asthma

Nietypowa diagnoza ukryta za źle kontrolowaną astmą

Ewelina Harceko-Zielińska¹, Krzysztof Kuziemski¹, Iwona Damps-Konstańska¹,
Beata Tokarska², Ewa Jassem¹

¹Department of Allergology and Pneumology, Medical University of Gdansk, Gdansk, Poland

²Department of Radiology, Medical University of Gdansk, Gdansk, Poland



Figure 1. Chest radiograph showing numerous rounded shadows caused by multiple rib fractures



Figure 2. Chest computed tomography scan in three-dimensional projection showing multiple rib fractures

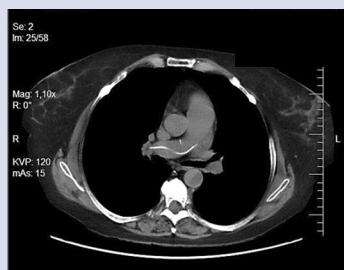


Figure 3. Chest computed tomography scan showing linear high attenuation shadow extending from the pulmonary trunk through the right pulmonary artery to its right upper branch

A 53-year-old woman who has never smoked was admitted to the Department of Allergology and Pneumology, University Hospital in Gdansk, Poland in order to modify current therapy of asthma. Since the age of 18 years the patient had been treated for year-round allergic asthma. Medical history included poorly controlled steroid-dependent asthma (10 mg prednisone, orally) for more than 20 years. Therapy was complicated by steroid-induced osteoporosis and multiple rib fractures (Figs. 1, 2). Furthermore, due to vertebral osteoporosis the patient was treated nine times with cementoplasty. In 2013, after the first cementoplasty, significant deterioration of general health status, increased dyspnoea, and limited exercise tolerance occurred. The patient was diagnosed with chronic respiratory failure and since 2014 has remained on home oxygen therapy. During the stay at the department HRCT of the thorax was performed. Computed tomography (CT) scanning revealed linear shadow of high attenuation extending from the pulmonary trunk (where it forms a noose) through the right pulmonary artery to its right upper branch (Fig. 3), which had a density of 465 HU (comparable to the density of the cement material of the spine). Additionally, a similar linear shadow was revealed in the vena azygos, connected with the cement material in the vertebrae, and some minor calcification of bone density in the lung parenchyma. The differentiation included the remains of the intravascular catheter; however, angio-CT confirmed the presence of cementitious material in the pulmonary circulation and parenchyma (Figs. 4, 5). Although pulmonary complication of percutaneous vertebroplasty is rare, a few cases of thromboembolism and cement displacement into pulmonary circulation have been described so far.



Figure 4. Computerised tomographic angiogram showing linear shadow in the vena azygos run connecting with the cement material after cementoplasty and a similar linear high attenuation shadow in the pulmonary trunk



Figure 5. Computerised tomographic angiogram disclosing a linear catheter-like foreign body from the vena azygos to the right atrium and the pulmonary trunk (where it forms a noose)

Address for correspondence:

dr hab. n. med. Krzysztof Kuziemski, Department of Allergology and Pneumology, Medical University of Gdansk, ul. Dębinki 7, 80-211 Gdańsk, Poland, e-mail: k.kuziemski@gumed.edu.pl

Conflict of interest: none declared

Kardiologia Polska Copyright © Polskie Towarzystwo Kardiologiczne 2017