



A CASE OF INTRATHORACIC SPLENOSIS DIAGNOSED BY TC-99M HEAT-DAMAGED RED BLOOD CELL SCINTIGRAPHY

LJUBICIC L.¹, Boras Z.¹, Markelic I.¹, Trkes V.¹, Baricevic D.¹, Kovacic H.³, Hadija-Markovic K.², Corak L.¹, Pavlisa G.¹, Dobrenic M.⁴, Vukic Dugac A.¹

¹ University Hospital Centre Zagreb, Zagreb, Croatia
Department for Respiratory Diseases Jordanovac

² General Hospital Dubrovnik, Dubrovnik, Croatia
Department of Pulmonology and Immunology

³ Neuropsychiatric Hospital, Popovaca, Croatia
Department of Psychosomatic Medicine

⁴ University Hospital Centre Zagreb, Zagreb, Croatia
Department of Nuclear Medicine

Background:

Intrathoracic splenosis presents a rare benign condition, usually occurring after spleen and diaphragm rupture. According to available literature, several years can pass between trauma and the diagnosis, even up to 20 years. The incidence of splenosis varies from 26-65%. Most patients are asymptomatic, with incidental findings, but some may present with pleurisy or recurrent hemoptysis.



Conclusion:

Given the rarity of intrathoracic splenosis, these lesions are often mistaken for lung malignancy or metastases on conventional imaging. However, intrathoracic splenosis is a rare condition that should always be considered a possible diagnosis in a patient who underwent splenectomy. Scintigraphy using technetium-99m-labeled heat-damaged red blood cells presents a valuable assessment in obtaining a diagnosis and avoiding unnecessary invasive diagnostic procedures, including thoracotomy.

Case:

We present a case of a 64-year-old man with a history of thoracic aortic aneurysm. He was referred for MSCT angiography due to regular monitoring, where lung nodules were verified as an incidental finding. The patient's medical history also included a splenectomy 30 years ago due to a splenic rupture accompanied by a left diaphragmatic injury after a road traffic accident. The patient underwent computed tomography (CT) of the chest, which revealed two nodules in the left lower lung lobe measuring 30x26 and 13x10 millimeters. There were no abdominal masses, and routine laboratory tests, including tumor markers, showed no abnormalities. The patient was suggested an invasive procedure to obtain a histopathological sample, which he declined, so we decided on further monitoring. At the follow-up examination six months later, an X-ray of the lungs was performed, which showed a stationary state. The patient also underwent a respiratory function test which showed a mild reduction in diffusing capacity but with normal spirometry. Finally, after consulting a radiologist and considering a suggestive past medical history, scintigraphy using technetium-99m-labeled heat-damaged red blood cells was obtained. Scintigraphy revealed several foci of radiotracer uptake in the left lower lung lobe but also in the fatty tissue next to



the upper pole of the left kidney and hepatic flexure. High uptake was also seen in the node inseparable from the small intestine loop. Since the positive finding is highly specific, the diagnosis of splenosis was made.