PULMONARY OSSIFICATION: LITERATURE REVIEW AND CLINICAL OBSERVATIONS

M. S. Opanasenko, O. V. Tereshkovich, B. M. Konik, V. E. Ivashchenko, L. I. Levanda, O. M. Faschuk

State organization "Yanovsky National scientific center of phthisiology, pulmonology,and allergology NAMS of Ukraine, Kyiv, Ukraine

Abstract. Introduction. Pulmonary ossification (PO) is a rare disease, especially in patients without a history of lung disease. PO has a slow course that can progressively cause impairment of lung function. It is characterized by the presence of ectopic metaplastic bone in the lungs. Although it is usually idiopathic, it can be associated with other diseases, such as interstitial lung disease. High-resolution chest computed tomography (CT) is the technology of choice for the diagnosis of PO, as it allows differential diagnosis with other diseases and eliminates the use of more aggressive diagnostic methods. Distinguishing radiographic features include two types of ossification: dendriform and nodular. Each pattern is associated with specific histological findings and may be associated with different entities or otherwise be idiopathic.

The aim. To present modern views on pathogenesis, diagnostic and histological criteria and prognostic factors of this pathology, as well as to inform about own observations.

Materials and methods. Over the past 12 years, 5 patients with PO were treated in our clinic, which was 0.52 % of all patients with disseminated processes in the lungs. There were only men in this group. The average age of the patients was 58.4 years. Upon admission, all of them complained of shortness of breath of varying degrees, discomfort in the chest, weakness. Low-grade fever was determined in one patient. Among comorbidities, chronic obstructive pulmonary disease was diagnosed in 3 patients, compression fractures of Th6, Th11 vertebral bodies and left-sided chylothorax in one patient, and right-sided pneumothorax in another patient. A patient with low fever was diagnosed with cancer of the right kidney.

The results. All patients were diagnosed with a disseminated pulmonary process of unclear genesis based on CT scan data before lung biopsy. In 4 observations, VATS-biopsy of the affected lung was performed, in one – via mini-thoracotomy. In the case of pneumothorax, lung biopsy was supplemented with thermo-chemical pleurodesis. In a patient with a chylothorax, the ductus thoracicus was clipped on the right and the left pleural cavity was drained to remove lymph after a lung biopsy. As a result of histopathological examination, the diagnosis of dendriform PO was made in 1 patient, and nodular PO in the rest.

Conclusion. A multidisciplinary council consisting of thoracic surgeons, pulmonologists and radiologists concluded that in one observation there is an idiopathic dendriform PO, in the remaining observations the nodular PO is secondary in nature due to diseases of the respiratory organs.

Key words: pulmonary ossification (PO), dendriform, nodular, interstitial lung disease, COPD.

Декларація етики. Під час збору, аналізу та оприлюднення данних забезпечено конфіденціальность пацієнтів, які надали добровільну письмову згоду на використання їх даних у науковій публікації.

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