

DIFFERENTIAL DIAGNOSIS OF SECONDARY ERYTHROCYTOSIS AND POLYCYTHEMIA VERA IN PATIENT WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Abstract. The article is dedicated to the problem of differential diagnosis between secondary erythrocytosis and polycythemia vera in patients with chronic obstructive pulmonary disease (COPD).

The aim. To demonstrate, through a clinical case study, the importance and specific features of differential diagnosis between compensatory (hypoxia-induced) secondary erythrocytosis and polycythemia vera, a primary myeloproliferative neoplasm, in patients with COPD.

Results. The article presents a case report of a 64-year-old male patient hospitalized in admitted to a neurological neurology department with an acute ischemic stroke. Concurrently, during the examination, the patient was diagnosed with a concomitant condition: COPD, GOLD 2, Group B. In addition, plethoric syndrome, complaints of erythromelalgia, and pruritus after showering (aquagenic pruritus) were revealed. Laboratory tests recorded confirmed alterations in hematological parameters (hemoglobin – 225 g/L, red blood cells – $6.53 \times 10^{12}/L$, hematocrit – 66.5 %), as well as a significant decrease in serum erythropoietin levels (< 1 mIU/mL). Molecular genetic testing confirmed the presence of a somatic point mutation in exon 12 of the Janus kinase 2 gene, and a bone marrow trephine biopsy verified the diagnosis of polycythemia vera. Furthermore, the article analyzes current insights into the pathogenetic mechanisms of development and differential diagnosis of erythrocytosis of various etiologies.

Conclusions. The coexistence of COPD and polycythemia vera represents a complex diagnostic challenge, as the presence of pulmonary pathology often mistakenly biases clinicians toward interpreting erythrocytosis purely as a secondary compensatory process. Timely comparison of the severity of respiratory dysfunction and the degree of erythremia, evaluation of erythropoietin levels, and referral to a hematologist help avoid the underdiagnosis of dangerous myeloproliferative disorders and prevent the development of fatal thrombotic complications.

Key words: chronic obstructive pulmonary disease, secondary erythrocytosis, polycythemia vera.