

4. CANCER-ASSOCIATED THROMBOSIS



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Introduction. Cancer-associated thrombosis is one of the leading causes of morbidity and mortality in cancer patients. It occurs frequently in patients with clinically active malignancy, however, there is a subgroup of patients in whom thrombosis may be the first manifestation of cancer. Because the diagnosis of malignancies can be challenging in pulmonary embolism, some laboratory tests might suggest a neoplastic process.

Case statement. A 48-year-old male was referred to the Cardiology Institute with suspicion of infective endocarditis. Without any known chronic disease, he went to the hospital after a long driving trip (about 48 h). The patient was directed to Cardiology Institute with thromboembolic disease: deep vein thrombosis of the right lower limb, pulmonary embolism, pneumonia-infarction and ischemic thalamic stroke. At admission to the hospital, he presented lumbar, thoracic, interscapular and subscapular pains, marked general weakness and diffuse headache. Infective endocarditis was excluded by blood culture and echocardiography. The patient, being on anticoagulant treatment (antivitamin K medication), complains of intensification of chest pain and CK-MB values increase up to 462 U/L (reference values: 0-24 U/L) and thrombocytopenia occurs. Later, CK-MB reaches values of 1530 U/L and severe thrombocytopenia ($21 \times 10^9/L$). EKG without ischemic changes, the troponin values were within the reference values. Thoracic and abdominal CT shows mediastinal, abdominal lymphadenopathy and vertebral metastases. The histopathological examination of the supraclavicular lymph nodes: lymph nodes with squamous malignant tumor metastases (of uncertain origin), cellular pleomorphism, frequent atypical mitoses, lympho-vascular invasion. The diagnosis of lung and abdominal carcinomatosis with bone metastases of unknown primary origin was confirmed.

Discussions. We aimed to present that in some cases thromboembolic disease can hide a neoplastic process. Numerous reports have appeared that deal with the presence of CK-MB or CK elevations in a variety of malignancies in the absence of obvious cardiac injury. This case indicates that our patient's thrombosis with his severe complications did originate from cancer.

Conclusion. Patients with malignancy have often an increased risk of thrombosis, both venous and arterial. Although the association between cancer and thrombosis has been appreciated for over 150 years, the mechanisms of cancer-associated thrombosis, like cancer itself, are multifactorial and incompletely understood. Cancer type, stage, tumor-derived factors, and genetics all affect the risk of cancer-associated thrombosis.