YuanYuan Zhang, Uanikhoba Emmanuel Temidayo

ANTHITHROMBOTIC TREATMENT EFFICACY OF ANTIPHOSPHOLIPID SYNDROME IN PATIENTS WITH THROMBIN GENE MUTATION AND COMORBIDITIES

Tutor: PhD, associate professor Maroz-Vadalazhskaya N.N.
Department of Cardiology and Internal Diseases
Belarusian State Medical University, Minsk

Relevance. Antiphospholipid syndrome (APS) is relatively known autoimmune condition targeted almost 0.05% of general population with high rate of thrombotic complications in different vascular bed. Antithrombotic treatment in this patients lets provide higher freedom of thromboembolic complications and better survival of patients if use the antagonist of vitamine K. Natural running of APS in comorbid patients with other immune of inflammatory diseases is not well established.

Aim: to analyze the efficacy of antithrombotic treatment of patients with APS, asthma and prothrombin gene mutation to emphasize thrombogenity control and complication rate in patient-oriented treatment.

Materials and methods. Caucasian 48-year-old patient with a chronic relapsing course of antiphospholipid syndrome (moderate immunological activity), inherited high-risk thrombophilia (protein S deficiency, prothrombin gene mutation), and concomitant asthma was primary treated with rivaroxaban 20 mg once a day. Among of the other comorbities there were hypertension stage 2, chronic hepatitis, and chronic kidney disease C2 with kidney concrements. In 2019 patient suffered pulmonary embolism. After COVID pneumonia early in 2020 he had underwent thromboectomy from right femoral artery early in 2020, then early in 2021 - right extremity amputation because of late phase of lower limb acute ischemia. Switch from rivaroxaban to warfarine was done in 2020 after COVID pneumonia. Soon patient was diagnosed with femoral vein. Last admission was done on warfarin treatment due to progression of asthma and pneumonia. Control antithrombin III showed its normal level (115.8%). Before last admission patient did not reach target INR during 2020-2025. In intensive care unit patient was treated with nadroparine therapeutic dose. In follow up no evidence of pulmonary embolism was found on pulmonary angiography. Two components asthma treatment additionally with wide range action antibiotics were used to control immune and bacterial inflammation.

Results and their discussion. Patient had a history of right lower extremity amputation due to acute thrombosis and continues to experience recurrent left lower extremity deep vein thrombosis with post-thrombotic syndrome and lymphorrhea, further complicated by severe uncontrolled asthma with COPD, severe pneumonia, grade 4 chronic heart failure, bilateral hydrothorax. He has been receiving rivaroxaban treatment since first AFS diagnosis in 2016. Instead of target block of Xa factor to prevent clotting the patient had multiple thromboembolic events also pulmonary embolism in 2019. General recommendation of APS treatment is warfarin but he did not receive it from during 2016-2020. Warfarin (7,5 mg per day) was initiated following COVID-19 infection, but target INR was not maintained.

Conclusion. Different antithrombotic treatment even patient-oriented with direct inhibition of coagulation factors is still challenging in APS with other immune and bacterial comorbidities. Long-term anticoagulation with warfarin under close monitoring and precise dose titration is required to achieve safe and effective thromboprophylaxis while managing his multiple complications. Instead of the long-term warfarin with close monitoring and precise dose adjustment remains the most appropriate strategy patient had multiple complications make clinical management highly challenging. The primary difficulty lies in balancing effective thrombosis control with the prevention of bleeding and the management of multiple comorbidities across different organ systems.