

Auto-immune haemolytic anemia (AHIA) and thrombocytopenia, Evans's syndrome?

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Background

Evans' syndrome is defined as the concomitant or sequential association of warm auto-immune haemolytic anemia (AIHA) and immune thrombocytopenia (ITP). Etiology is unknown, sometimes is associated to another disease, particularly with hematologic malignancies, primary immunodeficiencies, thrombotic microangiopathies, anaemia due to bleedings complicating ITP, myelodysplastic syndromes.

Case history

A 67-year-old Caucasian man presented to the Emergency Department reporting diffuse abdominal pain, fatigue, exertional dyspnea, fever, jaundice. On physical examination he presented with tachypnea, tachycardia, oxygen saturation 86% in ambient air, so he started O₂ therapy with VMK 60% Fio₂. His right foot appeared pale and pulseless, so he immediately performed CT angiography of the chest, abdominal and inferior limbs which revealed multiple parenchymal consolidations bilaterally, obstruction of mesenteric artery, iliac and right tibial artery. Empirical antibiotic therapy, together with Cilostazol was started. His past medical history was significant for hypertension, polyvascular atherosclerotic disease, type II diabetes mellitus, chronic hepatopathy HCV-HBV related. At admission to the Internal Medicine ward the patient presented with fever, Glasgow coma Scale of 11 points (E 4 M 4 V 3), eupnoic on O₂ therapy VMK 60%. On physical examination crackles on basal lungs, diffuse abdominal pain, pale, scleral jaundice. Laboratory exams showed Hb 5.3 g/dL (therefore he received multiple blood transfusions, with an increase of haemoglobin to 7.5), leukocytosis, PCT 34 ng/ml, CRP 11 mg/dL. Diagnosis of sepsis (qSOFA 3) and thromboangiitis obliterans were made, and iloprost, dual antiplatelet with Clopidogrel/Aspirin and fluid correction were started. Despite repeated blood transfusion, hemoglobin concentration decreased

with concomitant increase of LDH, bilirubin and reduced haptoglobin. Coombs' test was positive for IgG antibodies. Thus, AIHA diagnosis was made, but severe thrombocytopenia was found at haemochromocytometric examination, so Evans' syndrome was suspected. To rule out secondary causes of Evans' Syndrome, total body CT scan with contrast, serum protein electrophoresis, autoimmunity panel, screening for viral causes was performed, all with a negative result. No underlying pharmacological cause was found. Peripheral blood smears revealed lymphopenia, presence of immunoglobulins, some cells defined as "blasts/abnormal lymphocytes". Immunosuppressive therapy with high dose of corticosteroids was started, 1 mg per kg for 4 weeks, then slowly tapered over the following six months. Prophylaxis therapy with Aciclovir and Sulfamethoxazole/Trimethoprim was started. After one week from therapy there was significant improvement in symptomatology and laboratory tests. Haemoglobin was stable, so no more blood transfusions were made. The cause of AHIA and thrombocytopenia remained uncertain, so the patient was eventually referred to a hematology department to perform a bone marrow biopsy.

Discussion

AIHA is suspected in case of anaemia associated with reticulocytosis and with markers of haemolysis (elevated LDH, low haptoglobin and elevated indirect bilirubin) with a positive direct antiglobulin test for IgG with or without complement (C3d) as cold agglutinins are excluded from ES. ITP remains a diagnosis of exclusion. In this clinical case, differential diagnosis with thrombotic microangiopathies is more important, but patients were treated with steroids, which did not improve cytopenia. In Evans' syndrome corticosteroids represent the cornerstone therapy, used at a daily dose of 1 mg/kg of prednisone. The duration of treatment is 3–4 weeks with slow tapering over six months.