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Guest Editorial

Coomb's negative autoimmune hemolytic anemia: A diagnostic challenge for the hematologist

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ARTICLE INFO

Article history:
Received 15-11-2019
Accepted 12-12-2019
Available online 07-01-2020

Sir,

I would like to share my experience with a 40 year old female patient diagnosed with Coomb's negative autoimmune hemolytic anaemia (AIHA). Her major complaints were lassitude, pale yellow discoloration of skin and headache for one year. There was no history of prior drug exposure, blood transfusions, fever or any sort of infection.

On clinical examination patient was pale with icterus. Mild hepatosplenomegaly was found, however there was no lymphadenopathy. Complete blood counts revealed Hemoglobin of 6.2 g/dl, total leucocyte counts of 9500/ cumm with 72% neutrophils, 23% lymphocytes, 2% monocytes and 3% eosinophils. Platelet count was 1.8 lacs/cumm.Erythrocyte sedimentation rate was 60mm/ hr. Peripheral smear examination revealed micocytic hypochromic RBCs, with mild anisocytosis, few ploychromatophils and microspherocytes. Reticulocyte count was 8%. LDH was 600 U/L. Total bilirubin was 3 mg/dl with indirect bilirubin of 2.1 mg/dl. Clinical, biochemical and hematological features were suggestive of hemolytic anemia. Sickling test, osmotic fragility test and Hb electrophoresis tests were negative and other possible etiologies of hemolytic anemia were excluded. Direct and indirect Coombs tests were performed with poly-specific antisera at 4°C and 37°C by tube method were negative.

With a presumptive diagnosis of AIHA , prednisolone 60mg/m^2 /day was started. There was dramatic improvement with rise of Hemoglobin to 8 gm /dl and decrease in reticulocyte count to 4%. PBS also revealed reduction in polychromatophils and microspherocytes. Patient is on maintenance dose of steroids and doing well on follow ups.

AIHA occurs due to presence of IgG or IgM autoantibodies against red cell membrane antigens.[1] The cornerstone if diagnosis of AIHA is a positive Coomb's antiglobulin test.[2] Diagnosis of AIHA is generally not considered in Coomb's test is negative.

Exact frequency of Coombs negative AIHA is unknown. Naithani et al. found 6 patients to be negative by Coomb's test in their series of 79 cases.[3] Negative Coomb's test in AIHA patients could be due to low titres of autoantibodies on red cell membranes or low sensitivity of conventional tube method.

In conclusion Coomb's negative AIHA should be recognised so that early diagnosis and prompt treatment could be started.

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https://doi.org/10.18231/j.achr.2019.052

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Cite this article: Jamal I. Coomb's negative autoimmune hemolytic anemia: A diagnostic challenge for the hematologist. *Arch Cytol Histopathol Res* 2019;4(4):283-284.