Platelet antibodies, activated platelets and serum leptin in childhood immune thrombocytopenic purpura.

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Abstract:

BACKGROUND/AIM: The aim of this study was to evaluate the levels of platelet-associated antibodies (PAIgG and PAIgM), activated platelets and serum leptin in children with acute immune thrombocytopenic purpura (ITP). METHODS: The study included 40 patients with ITP and 40 healthy age- and sex-matched controls. PAIgG, PAIgM and activated platelet levels were estimated by flow cytometry, and serum leptin levels were estimated by ELISA. RESULTS: Activated platelets and serum leptin were significantly higher in the ITP patients than in the controls. The percentage and mean fluorescence intensity of PAIgG and PAIgM staining were significantly higher in the patients than in the controls. Serum leptin and activated platelet levels in patients with thrombocytopenia of brief duration were significantly lower than those in patients with thrombocytopenia of prolonged duration. The levels of activated platelets, serum leptin and PAIgG were positively correlated, and the levels of serum leptin, activated platelets and platelet counts were negatively correlated. CONCLUSION: The increased levels of activated platelets, serum leptin and platelet-associated antibodies in children with acute ITP suggest that these factors could play a role in ITP pathogenesis. Additionally, activated platelets and serum leptin could have prognostic significance in paediatric acute ITP.

Published In:

Acta Haematol, Vol.130, No.4, PP>312-318