

Cristina Emilia Ursu, MD, PhD

Romanian Academy of Medical Sciences, Onco-Hematology Research Unit, Children
Emergency Hospital “Louis Turcanu” Timisoara, European Hemophilia Treatment Centre, 2nd
Dr. Iosif Nemoianu, 300011 Timisoara, Romania

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USEFULLNESS OF ANTIPLATELET ANTIBODIES TESTING IN PAEDIATRIC ITP

Cristina Emilia Ursu¹, Margit Serban¹, Cristian Jinca², Estera Boeriu², Mihaela Lelic³, Delia Savescu³, Teodora Smaranda Arghirescu²

1. Romanian Academy of Medical Sciences, Onco-Hematology Research Unit, Children Emergency Hospital “Louis Turcanu” Timisoara, European Hemophilia Treatment Centre, 300011 Timisoara, Romania
2. Department of Pediatrics, Division of Onco-Hematology, Victor Babes University of Medicine and Pharmacy Timisoara, 300041 Timisoara, Romania
3. Laboratory Department, Children Emergency Hospital “Louis Turcanu” Timisoara, European Hemophilia Treatment Centre, 300011 Timisoara, Romania

Introduction. Immune thrombocytopenia (ITP), the present term for idiopathic TP, has remained a diagnosis of exclusion, largely dependent on clinical expertise.

Objectives. A retrospective single-institutional study performed on a cohort of hospital-admitted pediatric patients, aimed at assessing the frequency of ITP, its trend of evolution focusing on the clinical utility of antiplatelet antibodies (AA) testing for diagnosis certainty, therapy choice, and prediction of outcome.

Material and methods. From a cohort of 651 patients with thrombocytopenia, newly diagnosed ITP was assessed in 42 cases (6.45%) by excluding TP with a certified background. A number of 24 (57,14%) ITP were non-responding to the first-line therapy (IVIG, steroids) and have been investigated for AA using direct and indirect monoclonal antibody immobilization of platelet antigens (MAIPA), with anti-GP Ib/IX, IIb/IIIa, Ia/IIa, V reagents, and concomitant immuno-fluorescence (IF).

Results. The group of non-responder ITP patients presented positive AA assay in 66,7% cases, mainly against GP IIb/IIIa (31,25%) and GPIa/IXa (34,75%). The direct and indirect MAIPA seemed to have similar behavior (30% vs 36,67%). In these 16 positively tested patients the rate of recovery was 50% (8) off therapy; in 31,25% (5) with persistent evolution, further investigations revealed an immunodeficiency background, requiring a specific therapeutic approach. The 8 patients with negative AA had a recovery rate of 62,5%, 37,5% remaining in remission on treatment. Concerning the frequency of ITP during a follow-up of 3 years, it has not changed significantly ($p=0.3$), but the proportion of refractory diseases decreased due to newly introduced TPO-RAs (45%) and the choice for splenectomies decreased as well.

Conclusions. AA testing is not recommended as a routine procedure, but it helps to avoid misdiagnosis and gives certainty of diagnosis by its specificity. It could have also a prognostic predictive value for choosing the optimal way of therapy.