

## Idiopathic thrombocytopenic purpura (ITP) in childhood

### *Çocukluk çağında idiopatik trombositopenik purpura (ITP)*

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Dr. Abdul Rahman's [1] review article entitled "Acute immune thrombocytopenic purpura in children" gives me an opportunity to discuss my view on the subject.

First of all, I should repeat that every immune thrombocytopenia is not idiopathic thrombocytopenic purpura (ITP), but the reverse is correct -- every ITP is an immune thrombocytopenic purpura [2]. However, Dr. Rahman considers immune-mediated thrombocytopenia and ITP to be similar by definition. I believe they should be differentiated since thrombocytopenia of systemic lupus erythematosus (SLE) and Evans syndrome also have an immune base but they are not ITP. Contrary to Dr. Rahman's statement, direct Coombs test is also important for differentiation of Evans syndrome, SLE and drug-induced thrombocytopenia from ITP.

Although presence of antibodies in the ITP pathogenesis was first indicated by Harrington and his colleagues [3], we showed that relapse and remission values of antiplatelet antibodies (APA) correlated well with the clinical forms of the disease [4,5]. Therefore, I do not agree with Dr. Rahman's opinion that APA determination is not important for diagnosis and prognosis of ITP.

Following opsonization of platelets by APA, they are phagocytized by accessory cells (including RES and granulocytes) and are destroyed intracellularly, mostly in the spleen without involvement of complement fractions [4,6] which does not fit Dr. Rahman's explanations. This is the main point of determination of APA in serum with our assay method [4]. Although

there should be some effect of lymphocytes in the ITP pathogenesis, we could not show a direct relation of their contribution [7]. Our findings indicate that chronicity is less than 13% in acute ITP cases and significantly lessens with megadose methylprednisolone (MDMP) (30 mg/kg for 3 days and 20 mg/kg for 4 days; each dose given around 6 a.m. in 10-15 minutes intravenously (iv) or at once orally), and relapse decreases to 12.5%, contrary to Dr. Rahman's statements.

With MDMP treatment, platelet response would be equal to that with IVIG treatment. However, the cost of MDMP treatment is 60 times cheaper and it is easy, especially when given orally, with much less side effects. Conventional glucocorticoid (2 mg/kg) may delay platelet response as compared to an untreated group [8]. Therefore, we advise MDMP (oral) treatment as first approach for the management of acute ITP cases [8].

I believe platelet transfusion in ITP should not be considered without plasmapheresis, since it may not be effective because of APA, and that it should be considered as potentially contraindicated [9].

Contrary to Dr. Rahman's statement that "all of the randomized clinical trials conducted in children with ITP have focussed on platelet counts as the sole measure", we evaluated platelet count response together with decrease in APA for the first time [5].

We were also the first to use vincristine infusion for ITP management before MDMP treatment [10], in approximately 400 patients, but have not used it since the initiation of MDMP treatment.

## References

1. Rahman A. Acute immune thrombocytopenic purpura in children. Turk J Hematol 2007;28:41-8.
2. Özsoylu Ş. Every immune thrombocytopenia is not idiopathic thrombocytopenic purpura. Acta Paediatr 2004;93:1129-30.
3. Harrington WJ, Minnich V, Hollingsworth JW, Moore CV. Demonstration of a thrombocytopenic factor in the blood of patients with thrombocytopenic purpura. J Lab Clin Med 1951;38:1-10.
4. Özsoylu Ş, Karabent A, Irken G, Tuncer M. Antiplatelet antibodies in childhood idiopathic thrombocytopenic purpura. Am J Hematol 1991;36:82-5.
5. Özsoylu Ş, Irken G, Karabent A. High dose intravenous methylprednisolone for acute childhood idiopathic thrombocytopenic purpura. Eur J Haematol 1989;42:431-5.
6. Özsoylu Ş, Allahverdi H, Lâlei Y, Pınar A. Platelet survival in childhood idiopathic thrombocytopenic purpura in remission. J Pediatr 1976;89:388-90.
7. Tuncer AM, Özsoylu Ş, Ersoy F, Yeniay I. The effects of glucocorticoid on lymphocyte numbers. Immunol Today 1991;12:207.
8. Özsoylu Ş. Megadose methylprednisolone for childhood idiopathic thrombocytopenic purpura (ITP). Turk J Med Sci 2005;35:347-56.
9. Özsoylu Ş. Platelet transfusion in the presence of antiplatelet antibodies. Acta Haematol 1998;100:116.
10. Hiçsönmez G, Özsoylu Ş. Vincristine for treatment of chronic thrombocytopenia in children. N Engl J Med 1977;296:454.