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The interesting report of Dr. Putintseva throws some light on the hitherto unknown mechanisms underlying the transient reversal of thrombocytopenia in ITP, observed in connection with inflammatory and infectious conditions [1–3]. By analogy with the effect of high-dose gamma-globulin therapy [4, 5], it might be speculated if a competition between micro-bial antigen-antibody complexes and antibody-coated platelets for Fc receptor sites of the splenic macrophages plays a role, or if such complexes interfere with the binding of antiplatelet antibodies in ITP [6–10].

In the light of findings suggesting increased platelet turnover in ITP [11, 12] it seemed less plausible that infection-induced acceleration of thrombopoiesis could be of importance.

However, using autologous ¹²⁵I-labelled platelets, we found platelet turnover not to be increased in ITP [13], a finding that may reflect antibody-mediated inhibition of megakaryocyte maturation [14]. The finding of Dr. Putintseva of an elevated level of thrombopoietic stimulatory activity (TSA) in the convalescent phase of dengue fever points to a role of accelerated thrombopoiesis in the transient remission of thrombocytopenia. The significance of this finding must await further studies. In particular, it would be of interest to perform sequential platelet concentration, TSA, and reticuloendothelial function studies during and following infectious episodes in ITP patients.

References

Kurata, Y.; Tsubakio, T.; Yonezawa, T.; Tarui, T.; Kitani, T.: Transient remission after acute respiratory infection in patients with idiopathic thrombocytopenic purpura. *Ann. intern. Med.* 97: 553–555(1982).

Gross, D.J.; Or, R.; Stalnikowicz, R.: Transient remission of immune thrombocytopenia during acute pancreatitis. *Acta haemat.* 68: 345–346(1982).

Schmidt, K.G.; Rasmussen, J.W.; Wedeby, I.M.; Øster-Jørgensen, E.: Infection-induced transient remission of idiopathic thrombocytopenic purpura. *Acta haemat.* 69: 184–187 (1983).

Imbach, P.; Jungi, T.W.: Possible mechanisms of intravenous immunoglobulin treatment in childhood idiopathic thrombocytopenic purpura (ITP). *Blut* 46: 117–124 (1983).

Bussel, J.B.; Hilgartner, M.W.: The use and mechanism of action of intravenous immunoglobulin in the treatment of immune haematologic disease. *Br. J. Haematol.* 56: 1–7(1984).

Fehr, J.; Hofmann, V.; Kappeler, U.: Transient reversal of thrombocytopenia in idiopathic thrombocytopenic purpura by high-dose intravenous gamma globulin. *New Engl. J. Med.* 306: 1254–1258(1982).

Bussel, J.B.; Kimberly, R.P.; Inman, R.D.; Schulman, I.; Cunningham-Rundles, C.; Cheung, N.; Smithwick, E.M.; O'Malley, J.; Barandun, S.; Hilgartner, M.W.: Intravenous gammaglobulin treatment of chronic idiopathic thrombocytopenic purpura. *Blood* 62: 480–486(1983).

Schmidt, K.G.; Rasmussen, J.W.; Diederichsen, H.; Ulrich, M.: Release of platelets into the circulation induced by gamma globulin treatment in a case of idiopathic thrombocytopenic purpura. *Blut* 48: 27–31 (1984).

Uchida, T.; Yui, T.; Umezu, H.; Kariyone, S.: Prolongation of platelet survival in idiopathic thrombocytopenic purpura by high-dose intravenous gamma globulin. *Thromb. Haemostasis* 51: 65–66(1984).

Winiarski, J.; Kreuger, A.; Ejderhamn, J.; Holm, G.: High dose intravenous IgG reduces platelet associated immunoglobulins and complement in idiopathic thrombocytopenic purpura. *Scand. J. Haematol.* 31: 342–348 (1983).

Harker, L.A.: Thrombokinetics in idiopathic thrombocytopenic purpura. *Br. J. Haematol.* 19: 95–104(1970).

Branehög, I.; Kutti, J.; Weinfeld, A.: Platelet survival and platelet production in idiopathic thrombocytopenic purpura (ITP). *Br. J. Haematol.* 27: 127–143 (1974).

Schmidt, K.G.; Rasmussen, J.W.: Kinetics and distribution in vivo of ¹¹¹In-labelled autologous platelets in idiopathic thrombocytopenic purpura. *Scand. J. Haematol.* 34: 47–56 (1985).

McMillan, R.; Luiken, G.A.; Levy, R.; Yelenosky, R.; Longmire, R.L.: Antibody against megakaryocytes in idiopathic thrombocytopenic purpura. *J. Am. med. Ass.* 239: 2460–2462 (1978).