Response to Intravenous Immunoglobulin Predicts Splenectomy Response in Children With Immune Thrombocytopenic Purpura

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Objective. Response to intravenous immunoglobulin (IVIG) has been shown to predict response to splenectomy in adults with immune thrombocytopenic purpura (ITP). However, reports in children have been inconsistent. We sought to determine whether response to IVIG is predictive of response to splenectomy in children.

Methods. Thirty-two assessable children were identified by a retrospective chart review. Response was graded according to previously published criteria as follows: "excellent" (platelets >150 000 within 1 week), "good" (platelets between 50 000 and 150 000), and "poor" (platelets <50 000). "Response" refers to both splenectomy and IVIG, and response to splenectomy was counted only when it was durable.

Results. Twenty-one of 23 patients who had a good or excellent response to IVIG also had an excellent response to splenectomy. Six of 9 patients who had a poor response to IVIG also had a poor response to splenectomy. Response to IVIG was a sensitive predictor of response to splenectomy in 88% of patients. Response to IVIG had a specificity of 75%, a positive predictive value of 91%, and a negative predictive value of 67%. Response to prednisone and length of time to splenectomy were not correlated with splenectomy response.
Conclusions. These results suggest that response to IVIG is predictive of response to splenectomy in children with chronic ITP. This correlation may be of value in deciding whether a splenectomy should be performed in children with chronic ITP.

Key Words: ITP • splenectomy • intravenous immunoglobulin

Abbreviations: ITP, immune thrombocytopenic purpura • IVIG, intravenous immunoglobulin • ANA, antinuclear antibodies • SLE, systemic lupus erythematosus

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