

Long-term follow-up of patients with immune thrombocytopenic purpura whose initial response to rituximab lasted a minimum of one year

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Origin of Study	USA, United Kingdom, Italy
Type of Study	CLINICAL TRIAL
Objectives	Assess the long-term efficacy of rituximab (Rituxan) in patients with chronic immune thrombocytopenic purpura (ITP).
Study Design	All patients responding to rituximab treatment for at least 1 year were included in this study to determine the duration of the drug's response. In all, 44 patients fulfilled these criteria. Patients received 375 mg/m ² of rituximab weekly for 4 weeks.
Patients	In all, 8 children and 36 adults took part in the study. At onset of rituximab therapy, the 44 patients (gender, 28 females; median age, 32 years [range, 10–78 years]; duration of ITP, 4.25 years [range, 1 month–36 years] had platelet counts < 30 × 10 ⁹ /L and had received two or more previous ITP treatments; 20 had undergone splenectomy. The characteristics of the 15 patients for whom data were not available were similar.
Observations	Patients were followed for a median of 2.7 years. The 5.75-year response rate was 63.6%. Further, 13 of 16 relapses (81%) occurred within 2.5 years of initial treatment, and 21 of 28 patients (75%) with ongoing responses were followed for more than 2.5 years. Patients with responses > 2.5 years had a low likelihood of relapsing before 5 years; 88% who remained in continued remission maintained that response at last follow-up. Patients relapsed sooner after rituximab therapy if they had undergone splenectomy previously. The duration of ITP before rituximab therapy was significantly shorter for patients responding over 3 years than among patients responding for 1–3 years; however, there was no indication of how long patients should wait to start rituximab following diagnosis. Duration of response was not related to age, gender, time to a platelet count > 30 × 10 ⁹ /L, or splenectomy status. No serious infections, malignancies, or other major toxicities were seen.
Conclusions	In total, 30%–40% of patients treated with rituximab had a response that endured > 1 year, and a lasting response was seen in 60%–65% of such patients. Thus, infinite responses would be estimated to occur in approximately 20% of rituximab-treated patients diagnosed with chronic ITP.
Discussion	Previous studies have shown that ITP patients who achieve a complete response to rituximab are more likely to experience a longer duration of response than patients achieving only a partial response. In this study, investigators hypothesized that the likelihood of sustaining a response to rituximab for over 1 year would be roughly the same as the complete response rate, or about 35%.

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The study assessed the long-term efficacy of rituximab in patients with chronic ITP who were treated at the Platelet Disorders Center of Weill Medical College, New York, New York, and the Ospedale Regina Apostolorum, Rome, Italy. All patients had received rituximab (375 mg/m²) weekly for 4 weeks and had achieved a response that lasted for at least 1 year without additional treatments. Out of 137 patients treated, 36 adults and 8 children with a median ITP duration of about 4 years met the response criteria and were included in the study. They were followed for a median of 2.7 years.

Among the 44 patients who had a response to rituximab initially, the response rate at 5.75 years was 63.6%. Of the 16 who relapsed, 13 (81%) experienced relapses within 2.5 years of the initial treatment. Of 28 patients with ongoing responses, 21 were followed for at least 2.5 years, and 88% of those in continued remission demonstrated maintenance of response at their last follow-up.

“We found that rituximab can produce responses lasting at least 1 year in up to 40% of patients, and among these responders, even longer-term responses are maintained in 60%–65%. Indefinite responses, therefore, can be estimated to occur in approximately 20% of patients who start rituximab treatment for ITP,” said co-investigator Nichola Cooper, MD. “Patients who are most likely to relapse are going to do so within the first 2.5 years of treatment. Those who do not relapse by then seem to have a much longer response duration, past 5.5 years. And we have found that retreatment with rituximab usually produces another response in these patients.”

No clinical variables predicted which patients responding past 1 year would remain in partial or complete remission. Response rates were also similar regardless of splenectomy status, but patients relapsed sooner after rituximab if they had undergone splenectomy.

Key Points

- Approximately one third of rituximab-treated patients had a response that lasted > 1 year; after further follow-up, half of these responders have had lasting responses.
- No clinical variables have predicted which patients who respond past 1 year will remain in remission.
- The degree/duration of B-cell depletion among 44 long-term responders may predict a sustained response > 2.5 years.
- Long-term toxicity appeared to be minimal.

Reference

Patel V, Mihatov N, Cooper N, et al. Long-term follow-up of patients with immune thrombocytopenic purpura whose initial response to rituximab lasted a minimum of 1 year. Presented at the 48th Annual Meeting of the American Society of Hematology; December 9–12, 2006; Orlando, Florida. Abstract 479.