Introduction.— Granulomatosis with Polyangiitis (GPA) is an anti-CD20 antibody used successfully in Granulomatosis with Polyangitis (GPA) for induction and maintenance of remission. Our study aims to evaluate the long-term efficacy and safety of chronic pre-emptive RTX therapy in GPA.

Methods.— Retrospective study of 35 GPA patients treated with RTX between April 2004 and September 2011 for active disease and maintenance. RTX was initiated as two 1-g infusions 2 weeks apart and thereafter 2 g RTX was re-administered annually. Patients were followed for 47 (2–88) months. They received a median RTX dose of 8 g (2–13) dealt in five (1–10) rounds.

Results.— All patients had a clinical response, but nine relapses were recorded (flare rate of 6.6/100 patient-years). At last visit, 22 patients were still treated with RTX as 13 patients (37%) had discontinued RTX mainly due to hypogammaglobulinemia (62%). Nine patients (26%) had severe infections (infection rate of 6.6/100 patient-years) and ten patients (29%) had chronic infections.

Risks factors for severe infections are older age, renal involvement, high cumulative dose of cyclophosphamide, high prednisolone dose at last visit, low CD4/CD8 ratio and a significant drop in total immunoglobulins after the first RTX round and under maintenance.

Risks factors for chronic infections are low total immunoglobulins under maintenance, low B cells at baseline and possibly a high RTX cumulative dose.

Conclusion.— Long term pre-emptive RTX maintenance was efficacious in reducing the risk for relapse but was discontinued in a third of the patients. The patients’ net state of immunodeficiency under RTX changes over time as low level of total immunoglobulins increased the risk for infections.

http://dx.doi.org/10.1016/j.lpm.2013.02.298