

# Rituximab therapy in glomerular diseases: The last straw?

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## ABSTRACT

**Introduction:** Rituximab, a B-cell-depleting chimeric monoclonal antibody, has seen increasing use in treating immune-mediated glomerular diseases, despite limited clinical evidence. This case series aims to evaluate the safety and efficacy of rituximab in adult glomerulonephritis (GN) cases. **Materials and Methods:** This case series included all adult GN patients who received rituximab between January 2019 and July 2024 at Hospital Sultan Idris Shah, Serdang. Rituximab therapy consisted of two 1g intravenous infusions administered two weeks apart. **Results:** A total of 8 patients were identified, of whom 5 (62.5%) had lupus nephritis (LN) and 3 (37.5%) had focal segmental glomerulosclerosis (FSGS). All LN patients were female, with a mean age of 26.6 years, a mean initial eGFR of 76.6 mL/min, and a mean urine protein creatinine index (UPCI) of 11.2 g/g. LN Class III+V and IV+V accounted for two patients each, with one patient having Class IV. Rituximab was administered to 4 LN patients after they failed to achieve remission with other induction therapies, while 1 patient received it due to recurring infections despite being on low-dose cyclophosphamide and MMF. Three LN patients (60%) achieved partial remission, while the others showed no response. Among FSGS patients, the majority (66.7%) were male, with a mean age of 51.3 years. Compared to LN patients, they had a lower mean initial eGFR (46 mL/min) and a higher mean UPCI (15.3 g/g). Rituximab was used as a last-resort treatment for resistant FSGS, but none responded to the therapy. Only one LN patient experienced an adverse event, which included pruritus and a presyncopal attack at the end of the infusion. **Conclusion:** Rituximab may provide some benefit for patients with refractory lupus nephritis, as partial remission was observed in 60% of LN patients. However, its effectiveness in resistant FSGS appears limited. The therapy was generally well tolerated.