Background Primary glomerulonephritis is usually treated with steroids and immunosuppressants, however, some patients exhibit treatment resistance or severe toxicity related to the chronic treatment. It has been observed that the use of off-label rituximab could be an effective alternative to be used as treatment.

Purpose To assess the efficacy and safety of rituximab in the treatment of primary glomerular disease.

Material and methods Observational, retrospective study of all patients with primary glomerulonephritis treated with rituximab between 2012 and 2017. For data collection, the electronic clinic history system (Selene) was used, as was SPSS-Statistics for the statistical analysis. Data registered: sex, age, histological classification, dose and posology of rituximab. Efficacy was assessed comparing urine protein in a 24 hour period (UP-24), serum albumin (Alb), serum creatinine (Cr) and treatments with corticosteroid and immunosuppressants before and 6 months after treatment with rituximab. The profile of adverse reactions was recorded to assess safety.

Results Thirty-six patients (19 male and 17 female) were included with an average age of 60.32±14.94 years and histological diagnosis of membranous nephropathy (61.2%), focal segmental glomerulosclerosis (16.6%), minimal change disease (11.1%) and membranoproliferative glomerulonephritis (11.1%). The dosing regimens were two doses of 1 g of rituximab separated by 15 days (72.2%) and one single dose of 1 g (27.8%).

Six months after the beginning of treatment, the mean UP-24 (range 0.04–0.15 g/24 hour) decreased from 2.87 ±2.46 g/24 hour to 1.09±0.77 g/24 hour (p=0.001) normalising in 8.3% of patients. The mean Alb (range 3.5–5.2 g/dL) increased significantly from 3.3±0.7 g/dL to 3.9±0.5 g/dL (p<0.005) and the mean Cr (range 0.7–1.20 mg/dL) decreased from 1.24±0.56 mg/dL to 1.21±0.55 mg/dL (p=0.436).

Twelve patients used corticosteroids, of which 75% were able to discontinue them and 25% decreased the dose. Twenty-three patients used immunosuppressants, of which 78.2% could be discontinued and 21.8% reduced the dose.

Sixteen percent of patients had some adverse reaction, all related to perfusion (skin rash, sore throat and pruritus).

Conclusion Rituximab is an effective alternative for the treatment of primary glomerulonephritis. It significantly improves levels of UP and Alb, as well as allowing the suspension or reduction of doses of corticosteroid and immunosuppressant treatments with an acceptable profile of adverse reactions, all related to the administration of the drug.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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