Obinutuzumab is effective for the treatment of frequently-relapsing/steroid-dependent minimal change disease in adults

LI Jin, Wanhong Lu and Xueying LI
Department of Nephrology, the First Affiliated Hospital, School of Medicine, Xi’an Jiaotong University, P.R. China

Background and Aims: Higher relapse rates and steroid dependency are challenges in the treatment of minimal change disease (MCD). The aim of this study was to evaluate the efficacy and safety of obinutuzumab, a humanised type II anti-CD20 monoclonal antibody, in adults with frequently relapsing (FR) or steroid-dependent (SD) minimal change disease (MCD).

Method: Patients with FR/SD MCD receiving obinutuzumab at our center between September 2022 and February 2023 were enrolled. Complete remission was defined as the reduction of proteinuria to 0.3g/d. The time to remission, the relapse rate, and adverse events were evaluated.

Results: Six patients with FR/SD MCD were included in the present study. The median age of the patients was 30.44 years (range 18.80-72.09 years) and 3 of them were male. Prior to treatment with obinutuzumab, five patients remained in nephrotic syndrome and one patient was in partial remission after previous treatment. One or two doses of 1g obinutuzumab were given. All six patients achieved a complete remission. Five patients with nephrotic syndrome achieved complete recovery within a range of 14 to 57 days. The patient, who initially achieved partial remission, reached complete remission within 27 days after receiving the first obinutuzumab dose. The average follow-up duration was 12.53 ± 1.97 months, during which there was no observed relapse. Furthermore, None of the patients experienced infusion-related adverse effects, serious infectious complications or neutropenia following treatment with obinutuzumab.

Conclusion: Obinutuzumab is an effective and safe treatment option for adult patients with FR/SD minimal change disease. Further randomized trials are needed to confirm these findings.

Figure 1: Urine proteinuria and serum albumin trend after the first dose of obinutuzumab.