



THE THERAPY OF RITUXIMAB IN IDIOPATHIC MEMBRANOUS NEPHROPATHY WITH NEPHROTIC SYNDROME

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INTRODUCTION AND AIMS: The efficacy and safety of rituximab (RTX) in the treatment of idiopathic membranous nephropathy (IMN) with nephrotic syndrome is still controversial. No existing large-volume study is available, thus a systematic review and meta-analysis was performed.

METHODS: PubMed, Embase, Cochrane Library and Clinical Trials (September 2016) were searched to identify researches investigating the treatment of RTX in adult patients with IMN.

RESULTS: Seven studies involved 120 patients (73% were men) were included in our systematic review and meta-analysis. All were prospective observation cohort studies or matched-cohort studies, mainly came from two medical centers, one study was multi-centric (four renal units in northern Italy). All patients were renal biopsy-proven IMN, creatinine clearance > 20ml/min/1.73m², persist proteinuria > 3.5g/d for at least 6 months with previous treatment (44 (36.7%) had immunosuppressive treatment). RTX were used as first-line or second-line therapy. Our results indicated that RTX was efficient in the treatment of IMN. in 12- and 24-month, 56% (95% CI, 0.47-0.65) and 68% (95% CI, 0.41-0.87) patients could reach remission, while 15% (95% CI, 0.09-0.23) and 20% (95% CI, 0.12-0.32) patients could reach complete remission (CR). The reduction in proteinuria was gradual and obvious, paralleled with upward trend of serum albumin level and decreasing serum cholesterol level. Renal functions were stable. Relapses happened in 24 months were around 8%.

CONCLUSIONS: RTX related adverse events were mild and were mostly infusion-related reactions. In conclusion, RTX treatment in IMN was efficient, well tolerated and safe. More than 60% patients can reach partial remission (PR) or CR in 24 months, and relapse was rare. Adverse events of RTX were mostly infusion-related reactions and generally were mild.

REFERENCE:

1. Moroni G, Depetri F, Del Vecchio L, Gallelli B, Raffiotta F, Giglio E, et al. Low-dose rituximab is poorly effective in patients with primary membranous nephropathy. *Nephrology, dialysis, transplantation : official publication of the European Dialysis and Transplant Association - European Renal Association*. 2016 Jul 6.
2. Cravedi P, Sghirlanzoni MC, Marasa M, Salerno A, Remuzzi G, Ruggenenti P. Efficacy and safety of rituximab second-line therapy for membranous nephropathy: a prospective, matched-cohort study. *American journal of nephrology*. 2011;33(5):461-8.
3. Fervenza FC, Abraham RS, Erickson SB, Irazabal MV, Eirin A, Specks U, et al. Rituximab therapy in idiopathic membranous nephropathy: a 2-year study. *Clinical journal of the American Society of Nephrology : CJASN*. 2010 Dec;5(12):2188-98.
4. Fervenza FC, Cosio FG, Erickson SB, Specks U, Herzenberg AM, Dillon JJ, et al. Rituximab treatment of idiopathic membranous nephropathy. *Kidney international*. 2008 Jan;73(1):117-25.
5. Cravedi P, Ruggenenti P, Sghirlanzoni MC, Remuzzi G. Titrating rituximab to circulating B cells to optimize lymphocytolytic therapy in idiopathic membranous nephropathy. *Clinical journal of the American Society of Nephrology : CJASN*. 2007 Sep;2(5):932-7.
6. Ruggenenti P, Chiurciu C, Abbate M, Perna A, Cravedi P, Bontempelli M, et al. Rituximab for idiopathic membranous nephropathy: who can benefit? *Clinical journal of the American Society of Nephrology : CJASN*. 2006 Jul;1(4):738-48.
7. Ruggenenti P. Rituximab in Idiopathic Membranous Nephropathy: A One-Year Prospective Study. *Journal of the American Society of Nephrology*. 2003;14(7):1851-7.

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