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# Steroid Responsiveness in Idiopathic Membranous Nephropathy

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**Background:** Idiopathic membranous nephropathy (IMN) is a common cause of adult nephroticsyndrome. Corticosteroidis usually indicated in heavily proteinuric patients with IMN. However, efficacy of such treatment in Asian population has not yet been clearly defined. Therefore, we undertook this study to investigate steroid responsiveness in Korean patients with IMN.

**Methods:** Between January 1999 and December 2010, there were114 patients with biopsy-proven IMN at our center. Patients <18 years of age (n=10) and patients with follow-up duration <3 months (n=20) were excluded. In addition, we also excluded patients who were presumed to have secondary cause; hepatitis B antigen carrier (n=19),systemic lupus erythematosus (n=7), and malignancy (n=5). Therefore, a total of 53 patients were included in this study. Demographic, clinical, and laboratory data were retrospectively collected based on patients' medical records. Dose and duration of corticosteroid and other types of immunosuppressive agents were also reviewed. The primary endpoint was a composite ofcomplete (CR) and partial remission (PR). The secondary endpoints included a doubling of the baseline serumcreatinine levels, initiation of dialysis, and death.

**Result:** The mean age was 52.7 years (18-77) and 34 (64%) were male. The mean 24-hour proteinuria and serum creatinine levels at baseline were 5.79 g/day and 1.2 mg/dL, respectively. Of the patients, 33 (62.3%) received steroid treatment.There were no significant differences in baseline characteristics between the steroid and non-steroid groups. During the mean follow-up duration of 55.7 months (6-248), CR occurred in 4 (12.1 %) patients in the steroid group, whereas spontaneous remission occurred in 2 (10%) in the non-steroid group (p=0.56). In addition, 17 (51.5%) patients in the steroid group achieved PR compared with 7 (35.0%) in the non-steroid group (p=0.19).In a multivariate analysis adjusted for gender, age, blood pressure, the initial proteinuria, and serum creatinine levels, the risk of reaching the primary endpoint was significantly higher in the steroid group compared with the non-steroid group (HR, 2.77; 95% CI, 1.15-7.10; p=0.02). However, there were no differences in the secondary endpoints between the two groups (HR, 4.44; CI, 0.41-48.3; =0.22).

**Conclusion:** This study showed that steroid responsiveness was favorable in patients with IMN. Whether steroid treatment improves the long-term outcomes requires further investigation.

**Key Words:** Idiopathic Membranous Nephropathy, Corticorsteroid, Remission