HYPERTENSION IS ASSOCIATED WITH RENAL TUBULOCORTICAL INJURY IN IDIOPATHIC MEMBRANOUS NEPHROPATHY

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INTRODUCTION AND AIMS: Renal tubulointerstitial injury (TII) often occur accompanied with glomerular diseases, and plays important roles in their progression, while how TII affects idiopathic membranous nephropathy (IMN) is still unclear. Here, we retrospectively observed the characteristics of TII in IMN, and aimed to explore the potential factors associated with TII in IMN.

METHODS: Patients diagnosed as IMN via renal biopsy. All the patients didn’t administrate with either corticosteroid or immunosuppressants before undergoing renal biopsy, and accepted appropriate therapy according to the clinical and pathological features after renal biopsy. The patients were divided into two groups: TII group and non-TII group. Clinical and pathological data were accumulated after 12-month follow-up.

RESULTS: The 134 IMN patients, 27.4\% patients presented hypertension, and 20.9\% patients were exposed to cigarette smoking. The pathological results suggested 65 cases (48.51\%) existed TII in IMN. Patients with hypertension in TII group was significantly more than in non-TII group (p<0.05), as well as cigarette exposure was more in TII group. The patients with hypertension and heavy smoking appeared different grade TII. Compared to non-TII group, TII group appeared significantly higher levels of 24-hour urinary protein, urinary \( n = \text{MG} \), urinary \( \text{J2-MG} \), urinary albumin, serum creatinine and cystatin C (p<0.05), and significantly declined eGFR (p<0.05). Renal tubulointerstitial injury score was positively associated with serum creatinine, cys-C, 24-hour urinary protein, \( n = \text{MG} \), \( \text{J2-MG} \), albumin (all p<0.05), and negatively associated with eGFR (p=0.00). After 12-month follow-up, patients in TII group showed higher incidence of eGFR decrease.

CONCLUSIONS: TII occurs in IMN patients, which may be prompted by some clinical indicators. Hypertension is associated with TII, and may be affected by cigarette smoking. TII may affect the progression and prognosis of IMN, and further researches are needed to elaborate the mechanisms and explore effective therapies.