KSN 2017 Abstract

KSN-17-O061

The clinicopathologic and prognostic features of microangiopathic hemolytic anemia in the setting of IgA nephropathy with malignant hypertension

Chen PU, *Chen XIANGMEI, Xie YUANSHENG, Liu SHUWEN, Yin ZHONG, Zhang XUEGUANG, Li JIJUN

Nephrology Department, Chinese PLA General Hospita, Chinese PLA General Hospital, China(P.R.C)

Objectives : Thrombotic microangiopathy (TMA) is the common pathological characteristic in the setting of IgA nephropathy with malignant hypertension (IgAN-MHT) . Some cases may present severe clinical microangiopathic hemolytic anemia (MAHA). The prognostic significance of MAHA in patients with chronic kidney disease remains controversial. The objective of our study is to investigate the clinicopathologic and prognostic features of microangiopathic hemolytic anemia (MAHA) in the setting of IgAN-MHT.

Methods : A retrospective study was performed in 59 patients diagnosed as IgAN-MHT. According to baseline clinical characteristics, they were divided into MAHA group and non-MAHA group, retrospectively. Renal outcome was ESRD or starting renal replacement therapy. Multivariable logistic regression analysis of risk factors was analyzed. Continuous variables were indicated as mean (quartile).

Results : 16 cases were diagnosed as MAHA in 59 cases of IgAN-MHT (27.1%). MAHA group were younger[27.4 (20.8-32.2) vs. 32.7 (25.9-41.5) years,P=0.038], a shorter hypertension history[3.3 (0.3-2.9) vs. 32.9 (1.1-40.1) months,P=0.047], worse renal function [16.7 (5.9-20.1) vs. 36.1 (21.2-45.6) ml/min, P=0.002], lower IgG level [682.1 (517.5-805.3) vs. 904.6 (704.0-1070) mg/dl, P=0.003], lower IgA level [244.3 (166.0-328.5) vs. 312.4 (219.0-372.0) mg/dl, P=0.029], lower C3 level [82.5 (70.5-90.1) vs. 104.9 (87.2 -126.3)mg/dl,P=0.005], lower C4 level [24.6 (19.6-28.3) vs. 30.4 (25.2-35.9) mg/dl,P=0.017], lower albumin level[32.0 (29.7-35.4) vs. 39.4 (36.2-41.7) g/L,P=0.000]. IgAN pathological grade score was not different between the two groups (P=0.239). The proportion of glomerular crescent of MAHA group was higher [8.6%vs 2.3%, P=0.025]. Multivariate logistic regression indicated that albumin (OR=0.631) was independent protection factor of MAHA in IgAN-MHT. The average follow-up time was 21.6 months. 20 cases (33.9%) progressed into end point. Median renal survival time of MAHA group was 1.1 months, which of non-MAHA group was 61.7 months. The difference was statistically significant (log Rank P=0.001).

Conclusions : IgAN-MHT patients presenting MAHA had poor prognosis. Hypoalbuminemia may have important clinical implications in the setting of MAHA.

Keywords : Microangiopathic hemolytic anemia, IgA nephropathy, Malignant hypertension, Hypoalbuminemia, Clinicopathological study, Prognosis study