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Male Sex Is a Significant Predictor of All-cause Mortality in Patients with Antineutrophil Cytoplasmic Antibody-associated Vasculitis

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ABSTRACT

Background: We investigated and compared the initial clinical features at diagnosis and the poor outcomes during follow-up in Korean patients with antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis (AAV) based on sex.
Methods: The medical records of 223 immunosuppressive drug-naïve patients with AAV were reviewed. Age, body mass index (BMI), smoking history, AAV subtypes, ANCA positivity, clinical manifestations, Birmingham vasculitis activity score (BVAS), five-factor score (FFS), erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) at diagnosis were collected. All-cause mortality, end-stage renal disease (ESRD), cerebrovascular accident (CVA) and cardiovascular disease (CVD) were assessed as the poor outcomes of AAV during follow-up.
Results: The median age was 59.0 years and 74 of 223 AAV patients (33.2%) were men. Among variables at diagnosis, male patients exhibited higher BMI than female. However, there were no differences in other demographic data, AAV subtypes, ANCA positivity, BVAS, FFS, ESR and CRP between the two groups. Male patients received cyclophosphamide more frequently, but there were no significant differences in the frequencies of the poor outcomes of AAV between the two groups. Male patients exhibited a significantly lower cumulative patients' survival rate than female patients during the follow-up period based on all-cause mortality ($P = 0.037$). In the multivariable analysis, both male sex (hazard ratio [HR], 2.378) and FFS (HR, 1.693) at diagnosis were significantly and independently associated with all-cause mortality during follow-up.
Conclusion: Male sex is a significant and independent predictor of all-cause mortality in AAV patients.

Keywords: Sex; Difference; Antineutrophil Cytoplasmic Antibody Vasculitis; Clinical Features; Prognosis

INTRODUCTION

Based on the 2012 revised international Chapel Hill Consensus Conference nomenclature of vasculitides, antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis (AAV)