

Clinical characteristics and prognostic analysis of idiopathic inflammatory myopathy with positive anti-aminoacyl-tRNA synthetase antibodies

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Abstract

To determine distinct phenotype groups in patients with idiopathic inflammatory myopathy (IIM), and to identify the differences of clinical characteristics, laboratory findings, and the long-term outcomes in patients with antisynthetase syndrome (ASS) of different anti-aminoacyl-tRNA synthetase (ARS) antibodies. Methods: We enrolled retrospectively 280 patients with IIM, and the clinical characteristics and laboratory findings were collected. Additionally, multivariate COX regression analysis was performed to identify indicators of poor prognosis in patients with ASS. Results: 119 ASS and 161 non-ASS patients were identified in 280 patients with IIM, the occurrence rates of ILD, RP-ILD, pulmonary symptoms, arthritis, triad and mechanic's hands with ASS group were more prevalent than non-ASS group ($p<0.05$). Among 119 patients with ASS, the highest incidence of RP-ILD occurred in the PL12 group (36.4%). There was clinical significance of statistical differences in arthritis, myositis, mechanic's hands, triad, shawl sign, v sign, and Raynaud's phenomenon among the 4 subgroups ($p<0.05$). At the same time, the individuals in the positive anti-Jo1 antibody group were more likely to exhibit arthritis, myositis, mechanic's hands, triad and, v sign than the negative anti-Jo1 antibody group in patients with ASS, furthermore, statistically more prevalent ($p<0.05$). According to the multivariate COX regression analysis, mechanic's hands, ANA, and ILD were independent risk factors for poor prognosis in patients with ASS ($p<0.001$, $p=0.026$, and $p<0.001$, respectively). V sign was an independent protective factor for good prognosis in patients with ASS ($p=0.026$). Conclusions: When clinical characteristics including pulmonary symptoms, arthritis, mechanic's hands, ANA, along with ILD appear, clinicians should be on the alert for the occurrence of ASS in patients with IIM

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