MuSK antibody clearance during serial sessions of plasmapheresis for myasthenia gravis

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摘要

Abstract

To evaluate the relationship of antibody clearance and clinical improvement for myasthenia gravis (MG) patients with MuSK antibody (MuSKAb) receiving one course of double-filtration plasmapheresis (DFP) treatment, we prospectively recorded their MG scores and measured MuSKAb concentrations before and after each DFP treatment session in two MuSKAb-positive patients. The clinical improvement trends roughly paralleled the reductions of MG score, except for the late rebound of MuSKAb in the 6th DFP treatment session, without concomitant clinical worsening in one patient. Longitudinal analysis on the serological changes during the serial sessions revealed that the levels of MuSKAb fell by 44%, 59%, 79%, 82%, 92%, and 71% in patient 1 and 52%, 70%, 78%, 87%, and 90% in patient 2. The titers of MuSKAb decreased constantly during the first 5 DFP treatment sessions. MuSKAb clearance per session for the 11 sessions ranged from 19% to 56%, with a mean of 45%. In conclusion, DFP was effective for MuSKAb removal and amelioration of clinical weakness for our two patients with MuSKAb. A 5-session protocol cleared 90% of serum MuSKAb.