Efficacy of glatiramer acetate in neuromyelitis optica spectrum disorder: a multicenter retrospective study.

Glatiramer acetate (GA) is an approved therapy for relapsing-remitting multiple sclerosis, but its efficacy for the prevention of attacks in neuromyelitis optica spectrum disorder (NMOSD) remains unknown. We did a multicenter retrospective analysis of GA-treated patients with NMOSD, identified through a national registry. Annualized relapse rate and expanded disability status scale (EDSS) were the main outcome measures. We identified 23 GA-treated patients (21 female, 16 aquaporin-4 antibody-positive). GA was given for=6 months with GA (15 female, 11 aquaporin-4 antibody-positive), 14 experienced at least one relapse. There was no reduction in the mean annualized relapse rate in the total group (1.9 ± 1.1 before vs. 1.8 ± 1.4 during GA therapy), as well as in those patients who were aquaporin-4 antibody-positive, or had a history of prior immunotherapy or not. The median EDSS increased (2.5 start vs. 3.5 finish of GA, P< 0.05). GA therapy was discontinued in 15/16 patients; reasons were therapeutic inefficacy in 13 and post-injection skin reactions in
two patients. We conclude that GA is not beneficial for preventing attacks in most patients with NMOSD, particularly in aquaporin-4 antibody-positive cases.