Tryptophan immunoadsorption for the treatment of autoimmune encephalitis.

Abstract:
Detection of autoantibodies against neuronal surface antigens and their correlation with the pattern and severity of symptoms led to the definition of new autoimmune-mediated forms of encephalitis and was essential for the initiation of immunotherapies including plasma exchange. The elimination of autoantibodies using selective immunoadsorption (IA) is a pathophysiologically guided therapeutic approach but has not yet been evaluated in a separate analysis. A retrospective analysis was performed of patients with autoimmune encephalitis who were treated with tryptophan IA in six neurological clinics between 2009 and 2013. The modified Rankin scale (mRS) was used to evaluate neurological status before and after IA. Data on 13 patients were documented. Twelve patients were positive for specific autoantibodies (NMDA-R, GABA, GAD, Lgi1). Patients received a series of a median of six IA treatments. Median mRS of all patients was 3.0 before IA and 2.0 after IA (P < 0.001). Eleven patients improved by at least one point in mRS after IA. For autoimmune-mediated forms of encephalitis rapid elimination of autoantibodies with selective IA seems to be an effective therapeutic option as part of multimodal immune therapy.