The PROMESA-protocol: progression rate of multiple system atrophy under EGCG supplementation as anti-aggregation-approach.

Formation of toxic \( \alpha \)-synuclein oligomers appears to be a key underlying pathological mechanism of synucleinopathies such as Parkinson's disease or multiple system atrophy (MSA). Given that Epigallocatechin-gallate has been shown to inhibit \( \alpha \)-synuclein aggregation, it might represent a causal treatment option. Therefore, we set out to evaluate the safety, tolerability and a potential disease-modifying effect of Epigallocatechin-gallate in patients with MSA after 48 weeks of treatment. Power calculation was performed on existing natural history data on the progression of the Unified MSA Rating Scale as primary readout parameter. To assess the efficacy of Epigallocatechin-gallate versus placebo regarding the reduction of disease progression measured during the study period (80 % power, 5 % p level, 50 % effect size) 36 patients per group are needed. Considering a drop-out rate of 20 % a total of 86 patients will be recruited in this multicentre study. These data provide a solid rationale to investigate whether supplementation of Epigallocatechin-gallate can delay the progression of the MSA-related...
disability.