A double blind randomized placebo control trial of levetiracetam in tourette syndrome


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Résumé / Abstract

The objective of this study was to investigate the effectiveness of levetiracetam for the treatment of tics in children with Tourette syndrome (TS). Levetiracetam, an atypical anticonvulsant, has been suggested in open-label protocols to be an effective tic-suppressing agent in individuals with TS. A double blind, randomized, placebo-controlled, cross-over trial was performed to investigate this medication in children with moderate to moderately-severe tics. Subjects received, in a randomized sequence, 4-weeks of levetiracetam (maximum dose 30 mg/kg/day) or placebo, with a 2-week intervening washout period between cycles. Primary outcome measures included two separate scales from the Yale Global Tic Severity Scale; the Total Tic score and the Total overall score. Measures were assessed at baseline, prior to randomization, on Day 28 (end of Phase 1), on Day 42 (baseline for second phase) and on Day 70 (end of Phase 2). Twenty-two subjects (21 boys and 1 girl) with TS, mean age 12.2 ± 2.3 years, range 8 to 16 years, participated. A mild reduction in tics occurred during both the levetiracetam and placebo treatment phases. There was no significant difference between treatments and no evidence of sequence or cross-over effects. In conclusion, Levetiracetam is not more beneficial than placebo in suppressing tics in children with TS.