

**A Randomized, Double-blind, Placebo-controlled Trial of  
Tetrabenazine for Chorea in Huntington's Disease  
Huntington Study Group**

**Presenter:**

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**Objective:**

To examine the efficacy and dosing of tetrabenazine (TBZ) for treating chorea in Huntington disease (HD).

**Background:**

TBZ selectively depletes central monoamines by reversibly binding to the type-2 vesicular monoamine transporter.

**Methods:**

We randomized 84 patients with HD to receive TBZ (n=54) or placebo (n=30) for 12 weeks. Dosage, administered in 12.5 mg tablets, was increased over 7 weeks up to 8 tablets (100mg) daily, until the desired antichoreic effect or intolerable adverse effects occurred. The pre-specified primary outcome was the change from baseline in the chorea score of the Unified Huntington Disease Rating Scale (UHDRS). Additional outcomes included the Clinical Global Impression (CGI) scales, the UHDRS total motor score and gait, functional scales, tolerability, safety, and laboratory parameters.

**Results:**

TBZ treatment resulted in a decline of 5.0 units in chorea score compared with a decline of 1.5 units on placebo treatment (adjusted mean effect size =  $-3.5 \pm 0.8$  UHDRS units (mean  $\pm$  SE); 95% CI: -5.2, -1.9;  $p < 0.0001$ ). TBZ was also superior to placebo as assessed by the CGI Global Improvement scale (0.75 units,  $p = 0.007$ ), but not on UHDRS total motor score ( $p = 0.08$ ). There were five withdrawals in the TBZ group and four serious adverse events in three subjects (drowning suicide, complicated fall, and restlessness/suicidal ideation), compared with one withdrawal in the placebo group. Forty-eight subjects (89%) in the TBZ group had at least one adverse effect, compared with 21 subjects (70%) in the placebo group ( $p = 0.03$ ). No clinically significant alterations in surveillance laboratory tests were observed.

**Conclusion:**

TBZ, at a dosage of up to 100 mg/day, is effective for the treatment of chorea in HD.

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