

## **Strattera not found to be effective in improving cognition in HD patients**

Cognitive impairment is one of the most disabling of Huntington's Disease symptoms. Even partial amelioration would add significantly to quality of life, but there is currently no known treatment for cognitive problems.

Huntington's Disease involves a dysfunctional connection between the frontal cortex and the striatum which causes an impairment of executive dysfunction, including attention. Attention deficit disorder has also been shown to involve frontostriatal dysfunction. Researchers at the University of Iowa conducted a small clinical trial of atomoxetine (Strattera) to see if this attention deficit disorder drug might also help Huntington's Disease patients. Atomoxetine is a norepinephrine reuptake inhibitor.

Twenty early-stage volunteers were randomized to either the control group or a placebo group. After four weeks, there was a two week washout period followed by a crossover to the other group for an additional four weeks. Participants were administered a battery of cognitive and motor tests as well as some self-report instruments. There was a placebo effect in that participants reported improvements in attention and psychiatric symptoms on both the placebo and the medication. However, no objective improvements were found on the other tests.

The side effects were similar to those found in studies with other patients and included dry mouth, loss of appetite, insomnia, and dizziness. There were mild but significant increases in heart rate and diastolic blood pressure. No serious adverse events occurred.

The researchers note that it is possible that a four week trial was insufficient for the drug to become effective and that the sample was small which makes detecting possible effects more difficult. In addition, the patients were early stages. It may be that the drug would help later on in the progression of the disease. Still, this study provides valuable information to clinicians.

Although this trial did not show cognitive improvement, it is very important to conduct double blind placebo controlled studies of medications which might relieve symptoms. Except for tetrabenazine for chorea, all other drugs prescribed for Huntington's Disease symptoms are considered off label usage since they were not tested in HD patients. The results of clinical trials will help guide physicians in choosing medications for their patients.

### **Reference:**

Leigh J. Beglinger, Williams H. Adams, Henry Paulson, Jess G. Fiedorowicz, Douglas R. Langbehn, Kevin Duff, Anne Lesermann, Jane S. Paulsen, "**Randomized controlled trial of atomoxetine for cognitive dysfunction in early Huntington disease.**" *Journal of Clinical Psychopharmacology* 2009 Oct;29(5):484-7.

*Marsha L. Miller, Ph.D., September 18, 2009*