Amino Acid May Be Effective for Trichotillomania

BY MARY ANN MOON

The glutamate modulator *N*-acetylcysteine significantly reduces trichotillomania symptoms, according to a study of 50 patients.

In what the investigators described as the first clinical trial assessing a glutamatergic agent for this disorder, *N*-acetylcysteine was judged effective by both patients and physicians, to a degree comparable with other medications plus cognitive-behavioral therapy.

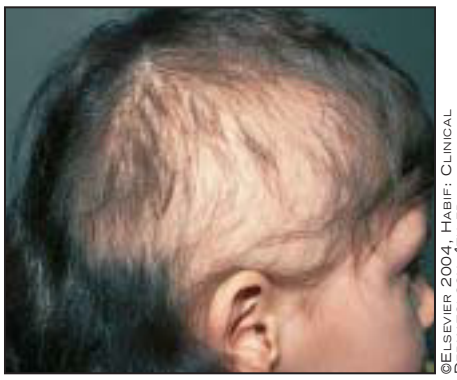
"*N*-acetylcysteine is an amino acid, is available in health-food stores, is cheaper than most insurance copayments, and seems to be well tolerated. [It] could be an effective treatment option for people with trichotillomania," said Dr. Jon E. Grant and his associates at the University of Minnesota, Minneapolis (Arch. Gen. Psychiatry 2009;66:756-63).

Moreover, the study results indicate that "pharmacologic manipulation of the glutamate system (in the nucleus accumbens) may target core symptoms of compulsive behaviors," they added.

Trichotillomania is the recurrent pulling out of hair—head hair, eyebrows, eyelashes, pubic hair, or other body hair—to obtain relief of tension, which leads to noticeable hair loss. There is no Food and Drug Administration–approved treatment for trichotillomania at present, but glutamatergic dysfunction has been implicated in the pathogenesis of disorders that have a compulsive component, and glutamate modulators like *N*-acetylcysteine have been used to treat cocaine urges and gambling behavior.

Dr. Grant and his colleagues assessed the agent in 45 women and 5 men (mean age, 34 years) who reported spending a mean of 65 minutes every day pulling out hair, usually from multiple sites. Most of these patients had never sought mental health treatment for hair pulling.

Thirty of the study subjects (60%) reported having at least one clinically important comorbid disorder, such as major depressive disorder; an anxiety disorder; another impulse-control disorder, such as skin picking or nail biting; or an eating disorder. Four patients were receiving psychotherapy, and 28 were taking a psychotropic medication or a stimulant.



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This patient extracted most of the hair from a wide area of the scalp.

Subjects were randomly assigned to receive 12 weeks of *N*-acetylcysteine or a matching placebo. A significant treatment effect was evident at 9 weeks and persisted for the duration of the study.

At the conclusion of treatment, those who had taken *N*-acetylcysteine showed significant improvement on both the severity subscale and the "resistance and control" subscale of the Massachusetts General Hospital Hairpulling Scale, as well as on the Psychiatric Institute Trichotillomania Scale.

A total of 56% of those in the active-treatment group said they were "much" or "very much" improved on the Clinical Global Impression (CGI) scale, compared with 16% of the placebo group.

Patients who received *N*-acetylcysteine did not show a greater improvement in psychosocial functioning than those who received placebo. However, this sample may have been too small to detect a meaningful difference between the two groups, given that at baseline, most of the subjects had only mild psychosocial dysfunction and reported a quality of life in the "average" range, Dr. Grant and his associates said.

Dr. Grant has received research grants from Forest Pharmaceuticals, GlaxoSmithKline, and Somaxon Pharmaceuticals and has served as a consultant to Pfizer Pharmaceuticals and Somaxon. In addition, Dr. Grant, who also is a lawyer, has consulted for law offices as an expert regarding impulse control disorders. ■