Initial positive results gleaned from intensive treatment of childhood attention deficit hyperactivity disorder (ADHD) are unlikely to be sustained over the long term, according to a recent analysis of data from the NIMH-funded Multimodal Treatment Study of Children with ADHD (MTA). The study was published online ahead of print March 2009 in the *Journal of the American Academy of Child and Adolescent Psychiatry*.

**Background**

The MTA was the first major multi-site trial comparing different treatments for ADHD in childhood. The initial results of the 14-month study, in which 579 children were randomly assigned to one of three intensive treatment groups (medication alone, psychosocial/behavioral treatment alone, a combination of both) or to routine community care were published in 1999. The
researchers found that the intensive medication management alone or in combination with the behavioral therapy produced better symptomatic relief for children with ADHD than just behavioral therapy or usual community care. Children who received the combination treatment fared best in other areas of functioning such as social skills and parent-child relations. About half of the initial benefits of the intensive medication management and combination treatments dissipated by the first follow-up, which was two years after the trial began.

A follow-up study published in August 2007 found that, although most children had maintained improvement three years after the trial began, the initial advantages of intensive medication management alone or in combination with behavioral treatment had waned. The most recent analysis by Brooke Molina Ph.D., of the University of Pittsburgh, and colleagues aimed to characterize the long-term functioning of the children eight years after they were enrolled in the trial.

## Results of the Study

Using reports from parents and teachers as well as self-reports from the children, now high school-aged, the researchers found that the youth’s functioning remained improved overall compared to their functioning at the beginning of the study, suggesting that available treatments can still be effective. However, they also found the following:

- The eight-year follow-up revealed no differences in symptoms or functioning among the youths assigned to the different treatment groups as children. This result suggests that the type or intensity of a one-year treatment for ADHD in childhood does not predict future functioning.
- Youths with ADHD still had significantly more academic and social problems compared with peers who did not have ADHD. They also had more conduct problems including run-ins with police, as well as more depression, and psychiatric hospitalizations.
- Some differences emerged among the youths with ADHD. For example, youths who had responded well to treatment and maintained their gains for two more years after the end of the trial tended to be functioning the best at eight years.
- A majority (61.5 percent) of the children who were medicated at the end of the 14-month trial had stopped taking medication by the eight-year follow-up, suggesting that medication treatment may lose appeal with families over time. The reasons for this decline are under investigation, but they nevertheless signal the need for alternative treatments.
- Children who were no longer taking medication at the eight-year follow-up were generally functioning as well as children who were still medicated, raising questions about whether medication treatment beyond two years continues to be beneficial or needed by all.

## Significance

The researchers suggest that maintaining a good treatment response probably requires a sustained
effort that takes into account long-term academic and behavioral problems commonly associated with ADHD and adapts to the demands of adolescence. Medication may continue to be helpful for some teenagers, but their needs should be re-evaluated periodically. The researchers also speculate that a child’s initial clinical presentation, including ADHD symptom severity, behavior problems, social skills and family resources, may predict how they will function as teens more so than the type of treatment they received.

What’s Next

The researchers acknowledge a crucial need for treatments that are more sustainable over the long run and accessible and effective among adolescents. Future studies could test the benefits of periodic treatments throughout a child’s development that adapt to the changing needs of teens with ADHD.

Reference


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