Pycnogenol highly effective as treatment for ADHD

Pycnogenol, an extract from the bark of the French maritime pine tree, has been used for many years as an alternative to drugs in the treatment of attention deficit hyperactivity disorder (ADHD) and related conditions. A new European study of 61 children with ADHD indicates that pycnogenol is highly effective in reducing symptoms of the disorder.

Jana Trebaticka and colleagues administered 1 mg/kg/day of pycnogenol or a placebo to the children for four weeks, in a double-blind study. Participants were tested before and after treatment, as well as at a follow-up one month after treatment ended, using the Conner's Teacher Rating Scale, the Conner's Parent Rating Scale, the Child Attention Problems (CAP) scale, and a modified version of the Wechsler Intelligence Scale for children.

The researchers report, "Results show that one-month pycnogenol administration caused a significant reduction of hyperactivity, [and] improved attention and visual-motoric coordination and concentration of children with ADHD." No gains were seen in the placebo group. Children taking pycnogenol relapsed after the treatment was discontinued.

The researchers conclude, "Our results point to an option to use pycnogenol as a natural supplement to relieve ADHD symptoms of children."

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"Treatment of ADHD with French maritime pine bark extract, Pycnogenol," J. Trebaticka, S. Kopasova, Z. Hradecna, K. Cinovsky, I. Skodacek, J. Suba, J. Muchova, I. Zitnanova, I. Waczulikova, P. Rohdewald, and Z. Durackova, *Euopean Child and Adolescent Psychiatry*, May 13, 2006 (epub ahead of print). Address: Zdenka Durackova, zdenka.durackova@Fmed.uniba.sk.

Naltrexone for autistic children: review highlights safety

Growing numbers of parents are administering low-dose naltrexone to their autistic children, often with excellent results *(see article by DAN! physician Jaquelyn McCandless in ARRI 19/2 and related article on page 5 of this issue)*. A new research review, by Gladys ElChaar and colleagues, indicates that the drug is very safe for pediatric patients.

ElChaar et al. evaluated all journal articles describing or evaluating the usefulness and/or safety of naltrexone in children with autism spectrum disorders. In all, they reviewed data from three case reports, eight case series, and 14 clinical studies.

The dosages used in these studies were typically far higher than those currently being used in low-dose naltrexone therapy. While current evidence indicates that the lower doses are much more beneficial, ElChaar et al. found that larger doses also could be effective in reducing self-injury and sometimes in reducing hyperactivity, agitation, irritability, tantrums, social withdrawal, and stereotyped behavior. The only adverse event frequently reported by the studies was sedation, although two children experienced panic attacks which appeared to be dose-related.

The researchers conclude, "A child affected by autistic disorder may benefit from a trial of naltrexone therapy, particularly if the child exhibits self-injurious behavior and other attempted therapies have failed."

Naltrexone, an opioid-blocking drug, is most frequently used to treat individuals addicted to opiates or alcohol. Researchers in the studies analyzed by ElChaar et al. used dosages of the drug ranging from 0.5 to 2 mg per kilogram per day, while low-dose naltrexone therapy typically uses a total dose of about 3 mg administered transdermally. Reported benefits include improved mood, cognition, language, and socialization.

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"Efficacy and safety of naltrexone use in pediatric patients with autistic disorder," G. M. ElChaar, N. M. Maisch, L. M. Gianni Augusto, and H. J. Wehring, *Annals of Pharmacotherapy*, Vol. 40, June 2006 (epub ahead of print publication). Address: Gianni Augusto, St. John's University, Clinical Pharmacy Practice Department, SAH Rm. 114, 8000 Utopia Pkwy, Queens, NY 11439-0001, giannil@stjohns.edu.

Two studies implicate measles vaccine in autism

(continued from page 1)

The researchers report, "Re-exposed children scored significantly higher than once-exposed for secondary physical symptoms including incontinence, presence of severe ileal lymphoid hyperplasia, number of biopsies with epithelial damage and number of children with acute inflammation." They conclude, "The data identify a re-challenge effect on symptoms and a biological gradient effect on intestinal pathology, which links measles-containing vaccine exposure to autistic-like developmental regression and enterocolitis." The finding, they say, is consistent with their clinical observation that a number of autistic children deteriorate further, both physically and behaviorally, after receiving a second dose of a measles-containing vaccine.

Wakefield and his colleagues note that the Vaccine Safety Committee of the U.S. Institute of Medicine has stated, when discussing the possibility of a link between the MMR vaccine and autism, that "challenge re-challenge would constitute strong evidence of an association."

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"Persistent ileal measles virus in a large cohort of regressive autistic children with ileocolitis and lymphonodular hyperplasia: revisitation of an earlier study," S. Walker, K. Hepner, J. Segal and A. Krigsman, poster presentation, International Meeting for Autism Research (IMFAR), June 1, 2006, Montreal, Canada.

—and—

"Gastrointestinal comorbidity, autistic regression and measles-containing vaccines: positive re-challenge and biological gradient," Andrew J. Wakefield, Carol Stott, and Kirsten Limb, *Medical Veritas*, Vol. 3, 2006, 796-802. Address: Andrew Wakefield, Thoughtful House Center for Children, 3001 Bee Caves Road, Austin, TX 78746.

LETTER TO THE EDITOR

To the Editor:

The recent abstract regarding B6, by Jim Adams et al. (ARRI 20/1), does not say why vitamin B6 works. It does report correctly that cell levels of P5P are lower in autistics than in controls. However, the 113 enzymes needing P5P is not an explanation focused on autism.

Next, I must point out that just B6 alone helps only about 30%. According to ARI's parent ratings of treatments (February 2006), 8% get worse, and 63% show no behavioral improvement. In other words, B6 alone is not beneficial in at least 70% of cases per parent reports.

The problem with B6 (pyridoxine) is slow phosphorylation. Zinc is the kinase activator; melatonin signals for phosphorylation; and magnesium compensates for slowed sulfation caused by megadose pyridoxine or P5P. It's likely that pyridoxine + magnesium + zinc + melatonin would help 70%, but that's speculation.

The conclusion that P5P caused 10% to exhibit worse behavior is not significantly different from 8% worse for pyridoxine per ARI Publication 34.

Because of individuality, some autistic children will do best on pyridoxine, some on P5P, some on a blend of both, and almost all will do best when zinc, magnesium, and melatonin are included.

Jon Pangborn, Ph.D.
Co-Author, *Autism: Effective Biomedical Treatments*
(DAN! Clinical Options Manual)