

# Biomedical Update:

## Swiss researchers advise: don't give up if first naltrexone results are negative

Swiss researchers who tested the opiate-blocking drug naltrexone on two autistic adult males report that the drug initially aggravated both patients' self-injury. After the first few days, however, both individuals reduced their injurious behavior dramatically.

The theory behind naltrexone treatment is that high levels of naturally occurring opioid-like chemicals in the brain may lead to self-injury—and that reducing the levels of these opioids may reduce such behavior by increasing the sensation of pain. In their two patients, say Renald Knabe, Pierre Schulz and Jacques Richard, the initial aggravation of self-injury may have been an attempt to cause the release of greater amounts of these natural opioids, to compensate for the drug's action.

"Our finding," they say, "suggests that patients receiving naltrexone should be closely supervised during the first days and that an initial aggravation of self-injury in given patients should not lead to the conclusion that the treatment is useless."

"Initial aggravation of self-injurious behavior in autistic patients receiving naltrexone treatment," Renald Knabe, Pierre Schulz, and Jacques Richard, *Journal of Autism and Developmental Disorders*, Vol. 20, No. 4, Dec. 1990, pp. 591-593. Address: Renald Knabe, Department of Psychiatry, Geneva University Hospital, CH-1225 Chene-Bourg, Switzerland.

## Widely used sedative may be carcinogenic

Chloral hydrate, a drug used as a sedative for more than 100 years, may be highly carcinogenic, according to California state health director Kenneth Kizer.

In a letter to the FDA urging the federal government to study the drug's effects and develop alternatives, Kizer noted that more than 20 animal and laboratory studies indicate that chloral hydrate can alter genetic material and cause cancer after even a single dose. In one study, two of five animals exposed to the drug developed liver tumors.

Pediatrician Mary Mortenson, a toxicologist and member of the drug committee of the American Academy of Pediatrics, questioned whether the animal and laboratory studies are applicable to humans, noting that there appears to be no "epidemic of liver tumors in kids" despite widespread use of chloral hydrate to sedate children for medical procedures. Nonetheless, she agreed that the issue merits further study.

**Editor's Note: Parents whose children have taken significant amounts of chloral**

**hydrate might want to consider giving their children anti-oxidants (particularly beta carotene, vitamins C and E, and selenium). There is considerable evidence that these nutrients play an important role in preventing cancers.**

"Safety of sedative is questioned," *San Diego Union*, Dec. 17, 1990.

## Marfan's syndrome reported in three Asperger's cases

Marfan's syndrome made headlines in recent years as a cause of the deaths of several famous athletes. A new report by Digby Tantam et al. indicates that this very rare hereditary disorder of the body's connective tissues sometimes occurs in—and may be linked to—Asperger's syndrome.

Tantam and colleagues report on two teenage girls and one adult male with symptoms of Asperger's syndrome (similar to high-functioning autism). Each of the individuals had enough symptoms of Marfan's syndrome to receive that diagnosis as well. (The major symptoms of Marfan's syndrome include defects of the aorta and heart valves, dislocation of the lens of the eye, and trembling of the iris of the eye. Other symptoms include nearsightedness, high arched palate, unstable joints, flat feet, a tall, thin build, spinal and chest deformities such as funnel chest or scoliosis, and "spiderlike" fingers and toes.)

Tantam et al. speculate that "A direct link [between Asperger's and Marfan's] may result from an adverse effect of the connective tissue disorder on the brain." Alternatively, they say, Marfan's—by delaying and altering motor development—may impair a child's nonverbal communication and social skills, leading to symptoms of Asperger's in later life.

"Asperger's syndrome and ligamentous laxity," Digby Tantam, Christopher Evered, and Lionel Hensov; *Journal of the American Academy of Child and Adolescent Psychiatry*, 29, 6, 1990, pp. 892-896. Address: Digby Tantam, Senior Lecturer in Psychiatry, University Hospital of South Manchester, Manchester M20 8LR, UK.

### CONFERENCE NOTICE:

The Autism Society of America's 1991 Conference will be held July 9-13 at the Westin Hotel in Indianapolis, Indiana. For registration information contact the Office of Conference Planning, University Place Conference Center, 850 West Michigan, Indianapolis, IN 46202, (317) 274-4364. For program information, contact the Indiana Resource Center for Autism, (812) 855-6508.

## Treatments promising

A synthetic hormone may be worth investigating as a treatment for symptoms of autism, according to a report in the *Journal of Autism and Developmental Disorders*.

The synthetic hormone (Org 2766), an analog of the hormone ACTH 4-9, was given to 14 autistic and autistic-like children in a four-week double-blind placebo cross-over test. Jan Buitelaar et al. of the Netherlands report that while clinical ratings did not change significantly, parents and teachers noted that children taking the hormone were more talkative and appropriately active, and showed less stereotypic behavior.

While Buitelaar and colleagues caution that "it is much too early for Org 2766 to be clinically recommended," they believe the hormone "merits further study."

The December 1990 *JADD* also contains a case study by Christopher J. McDougle et al. indicating that the drug fluvoxamine can be a useful treatment for autistic individuals who also have obsessive-compulsive disorder (OCD). McDougle and colleagues administered the drug to a 30-year-old with both autism and OCD, whose obsessive-compulsive symptoms included collecting and lining up objects, compulsive hand-washing, and an obsession with having the fingernails on each hand manicured in exactly the same manner as those on his other hand (an obsession to which he devoted 12 to 15 hours a day!).

After eight weeks of fluvoxamine treatment, the researchers report, the man's symptoms of OCD were greatly reduced, he began desiring social relationships, his temper tantrums decreased, and he was less withdrawn. He reported, they say, that "something amazing has occurred."

Fluvoxamine, already a common treatment for OCD, inhibits the uptake of the neurotransmitter serotonin by brain cells. Noting the similarities between OCD and autism, and the very significant decrease of their patient's autistic symptoms as well as his OCD symptoms during fluvoxamine treatment, McDougle et al. "suggest that controlled studies of potent 5-HT reuptake inhibitors are warranted in autistic disorder."

**Editor's Note: Because self-injurious behavior appears to have a strong OCD component in many cases, other researchers are investigating the effect of OCD drugs on self-injury. Watch ARRI for results of these studies.**

"Behavioral effects of Org 2766, a synthetic analog of the adrenocorticotropic hormone (4-9), in 14 outpatient autistic children," Jan K. Buitelaar, Herman van Engeland, Jan M. van Ree, and David de Wied; *Journal of Autism and Developmental Disorders*, Vol. 20, No. 4, 1990, pp. 467-478. Address: Jan K. Buitelaar, Department of Child and Adolescent Psychiatry, State University Hospital of Utrecht, P.O. Box 85500, 3508 GA Utrecht, The Netherlands.

"Fluvoxamine treatment of coincident autistic disorder and obsessive-compulsive disorder: a case report," Christopher McDougle, Lawrence Price, and Wayne Goodman; *Journal of Autism and Devel. Disorders*, Vol. 20, No. 4, 1990, pp. 537-543. Address: Christopher J. McDougle, Connecticut Mental Health Center, 34 Park Street, New Haven, CT 06519.