

# Biomedical Update:

## Clomipramine problems reported

Clomipramine, a drug used to control obsessive-compulsive behaviors and autistic symptoms, can cause urinary and bowel problems, according to a new study by Laura Sanchez et al.

Sanchez and colleagues examined the effects of clomipramine on eight autistic children. Four of their subjects became constipated while taking the drug, and one developed acute urinary retention. Symptoms were successfully treated by switching the children to high-fiber diets, giving them Metamucil, and increasing their intake of fluids.

"Untoward effects and their clinical management in young autistic children treated with clomipramine," Laura E. Sanchez et al., cited in *The Brown University Child and Adolescent Behavior Letter*, Vol. 10, No. 9, September 1994. Address: Laura E. Sanchez, Department of Psychiatry, New York University Medical Center, 550 First Avenue, New York, NY 10016.

## Seizure drugs can be stopped in weeks

Tapering seizure-free children off anticonvulsive drugs can be done safely in weeks, according to a recent study in the *New England Journal of Medicine*.

Michael Tannison and colleagues studied the effects of drug withdrawal on 149 children who had been seizure-free for two years. Comparing the seizure rates of children withdrawn from drugs gradually over a nine-month period and those who were tapered off in six weeks, the researchers found that sixty percent of children in each group remained seizure-free over the next 39 months.

"Antiepileptic drugs produce such undesirable side effects as cognitive and behavioral changes," the researchers say. "Thus, discontinuing these drugs is desirable as soon as the patient's tendency to have seizures is under control." Anticonvulsants can also affect nervous system and immune system functioning, and cause changes in bone marrow and skin.

Tannison and colleagues suggest that previous studies indicating a need for long drug withdrawal periods had design flaws that biased their conclusions.

"Discontinuing antiepileptic drugs in children with epilepsy: a comparison of a six-week and a nine-month taper period," Michael Tannison, Robert Greenwood, Darrell Lewis, and Michael Thorn; *New England Journal of Medicine*, Vol. 330, No. 20, May 19, 1994. Address not listed.

## Naltrexone: head-banging, self-biting reduced

The drug naltrexone reduced head-banging and self-biting in retarded adults while leaving other self-injurious behaviors unchanged, according to a study by Travis Thompson et al.

Naltrexone blocks the effects of opioids, natural opium-like chemicals in the body. The body releases more opioids after an injury occurs, and research suggests that some self-injurious behavior (SIB) may be an attempt to achieve an opioid "high."

The researchers administered naltrexone (50 or 100 mg) to severely or profoundly retarded subjects in a double-blind, within-subjects study. Clonidine, a drug used to ease the effects of opiate withdrawal in heroin addicts, was given concurrently to half the subjects. Thompson et al. report that "during naltrexone administration, there were fewer days with frequent head-banging and self-biting, whereas there were more days on which blows to the head or self-biting were infrequent." Effects did not vary according to dosage. Other self-injurious behaviors—skin-scratching, pinching, and poking the mouth, nose, and ears—were unaffected or, in some cases, worsened slightly.

"It is possible," the researchers say, "that the forms of self-injury that do not change following naltrexone treatment are under the control of environmental variables and are, therefore, unaffected by [naltrexone]." Alternatively, they say, different forms of SIB may be influenced by different neurochemicals, or SIB to some areas of the body may release more natural opioids than injury to other areas.

The researchers noted a trend toward increased naltrexone effectiveness as the study progressed, suggesting that it may take time for self-injurious behavior patterns to cease even when they no longer result in high opioid levels.

*(Editor's note: Little mention was made in this study about the effects of clonidine given concurrently to several participants. Clonidine, by itself, has been shown in several studies to reduce behavior problems in autistic or retarded subjects, and was one of the highest rated drugs on ARI's most recent drug survey.)*

"Opioid antagonist effects on self-injury in adults with mental retardation: response form and location as determinants of medication effects," Travis Thompson, Timothy Hackenberg, Daniel Cerutti, Dan Baker, and Sara Axtell; *American Journal on Mental Retardation*, 1994, Vol. 99, No. 1, pp. 85-102. Address: Travis Thompson, John F. Kennedy Center, Peabody College, Vanderbilt University, Nashville, TN 37203.

## Asperger's syndrome: a question of diagnosis

Is Asperger's autism? Not necessarily, according to John Pomeroy et al.

Asperger's syndrome, generally considered to be a mild variant of high-functioning autism, shares many of its symptoms—social impairment, obsession with routines and rituals, speech and language problems, and odd "body language." But people with Asperger's are much less disabled than people with classical autism; in fact, Mary Coleman and Christopher Gillberg note that Asperger's is not necessarily incompatible with leading a "superficially normal family life" in adulthood. Many people with Asperger's have seemingly normal language skills, although closer examination shows that their language is stilted and often concrete or inappropriate. Conversely, individuals with Asperger's show some symptoms not common in classical autism, including clumsiness.

Pomeroy and colleagues, curious about the similarities and differences between autism and Asperger's, compared the performance of 13 autistic children, 15 children with Asperger's syndrome, and 27 behavior-disordered children on a battery of cognitive tests. The results, they say, indicate that "Asperger's and autistic disorders may have some clinical similarities but different neuropsychological profiles."

Autistic children in the study did well on tests of visuospatial skills and immediate recall, but did poorly on tests of abstract verbal skills. Children with Asperger's did not show the same cognitive weaknesses, and actually scored higher than both autistic children and controls on one test of abstract thinking (the "Trail" task, which required them to shift rules used in solving problems).

Pomeroy et al. say autistic children's deficits were consistent with an "executive function" disorder—that is, deficits in cognitive operations controlled by the frontal cortex, including planning and inhibition. The results of the Asperger's children, however were not. Their findings, they say, are consistent with earlier findings by Sally Ozonoff and colleagues, who found that individuals with Asperger's had different cognitive profiles than those with autism.

Researchers who equate autism and Asperger's, the researchers say, must "explain why individuals with Asperger's Disorder do not appear to have the core psychological deficits that have been attributed to autism."

"Stony Brook PDD study: validation of sub-categories of PDD—Asperger's disorder," presentation to the Academy of Child and Adolescent Psychiatry, October 1994. Address: John C. Pomeroy, School of Medicine, Division of Child and Adolescent Psychiatry, Department of Psychiatry and Behavioral Science, SUNY Stony Brook, Stony Brook, NY 11794-8790.

**REMINDER: a subscription to the ARRI is an excellent gift for a friend, relative, or teacher interested in autism!**