

Biomedical Update:

Are some families at risk for both autism and alcoholism?

One subgroup of autism may be linked to familial alcoholism, according to research by medical geneticist Judith Miles.

Miles and her colleagues screened a consecutive sample of 119 autistic individuals, and found that one-third had a significant family history of alcoholism (defined as a first-degree relative with alcoholism, a second-degree relative plus two additional alcoholics in the same family branch, or at least four alcoholic relatives in the same family branch). In the families with a history of alcoholism, 61 percent of the fathers and 20 percent of the mothers were alcoholics. The researchers suggest that these families may carry genes that predispose to both autism and alcoholism.

Miles and colleagues note that autistic children from families with a history of alcoholism tended to have higher IQs and fewer physical anomalies than other autistic children, and had more relatives with autism and affective disorders. In addition, they were more likely than other subjects to have autistic siblings.

The researchers' findings were reported at the annual meeting of the American Society of Human Genetics.

"Alcoholism found in one-third of families of autistic patients," Barbara Baker, *Clinical Psychiatry News*, Vol. 28, No. 1, 2000, p. 30.

Ethnicity can alter reaction to drugs

Doctors prescribing psychotropic drugs should take their patients' ethnic backgrounds into consideration, according to psychologist C. Alan Hopewell. Among the ways he cites in which ethnicity can influence a patient's response to psychiatric medications:

—African Americans appear to respond better than Caucasians to tricyclic antidepressants, phenothiazines, and anti-anxiety medications. Thus, they require smaller doses of these drugs.

—Hispanic patients are more likely to report side effects from antidepressants, which may be evidence of receptor hypersensitivity.

—African Americans are more likely than other patients to develop lithium toxicity, partly because they are more prone than other ethnic groups to high blood pressure. Hopewell notes, "Lithium cations work pri-

marily by competing with sodium and thereby blocking receptor sites as a psychopharmacodynamic action." The low-salt diet prescribed for many hypertensive patients, he says, "can significantly affect lithium plasma levels and risk for toxicity."

—Asian American patients often require lower doses of neuroleptic drugs than Caucasian patients. In addition, Hopewell says, Korean-American patients with schizophrenia frequently can be treated with smaller-than-average doses of clozapine.

Hopewell's findings were presented at the annual meeting of the American Psychological Association.

"Ethnicity can influence psychotropic effectiveness," Kathryn Demott, *Clinical Psychiatry News*, Vol. 27, No. 10, 1999, p. 13.

Clonidine reduces severe self-injury

The blood pressure drug clonidine (Catapres) can reduce severe self-injurious behaviors, according to a study by P. Blew and colleagues.

The researchers' subject, a nine-year-old girl with pervasive developmental disorder, had damaged her face, neck, and inner thighs by pinching, scratching, and rubbing her skin. Blew and colleagues report that at a dose of 0.4 mg. daily, "the girl's SIB showed marked improvement over a 24-month period of observation."

An earlier study (see ARRI 6/3, 1992) found that clonidine could reduce hyperarousal and aloofness in autistic children and adults. The drug, available in patch or pill form, alters availability of the neurotransmitter norepinephrine in the brain.

Earlier reports linking clonidine to sudden heart failure, particularly when the drug was taken with other drugs, have not been substantiated. However, researchers warn that children taking clonidine should have their blood pressure and heart rate carefully monitored, and that children with existing heart or circulatory disorders should not take the medication without undergoing electrocardiograms and being closely supervised. Clonidine can cause constipation, dry mouth, and fatigue.

"Beneficial effects of clonidine on severe self-injurious behavior in a 9-year-old girl with pervasive developmental disorder," P. Blew, J. K. Luiselli, and S. Thibadeau, *Journal of Child and Adolescent Psychopharmacology*, Vol. 9, No. 4, 1999, pp. 285-291. Address: P. Blew, May Institute, Inc., May Center for Applied Research, Norwood, MA 02062.

Drug warnings issued

Updated warnings have been issued for two psychotropic drugs sometimes prescribed for autistic children, and one of these drugs has been removed from the market altogether in Canada.

GATE Pharmaceuticals recently notified health care providers that ORAP (pimozide), a drug commonly used to suppress tics in individuals with Tourette syndrome, has caused sudden, unexpected deaths in patients taking doses higher than 10 mg. "One possible mechanism for such deaths is prolongation of the QT interval," the company says, "predisposing patients to ventricular arrhythmia."

The company warns that ORAP should not be taken with macrolide antibiotics (such as clarithromycin, erythromycin, dirithromycin, or troleandomycin), antifungal agents (such as itraconazole and ketoconazole), protease inhibitors, nefazodone, or zileuton. In addition, the drug should not be taken with grapefruit juice, which can significantly increase its potency.

In a separate action, Abbott Laboratories has strengthened its warnings about Cylert (pemoline), a drug frequently given to hyperactive children. Cylert is associated with life-threatening liver failure, with 15 cases of acute hepatic failure (including 12 cases resulting in death or liver transplantation) reported since the drug went on the market in 1975. The new guidelines from Abbott recommend that patients or their parents sign informed consent forms before the drug is prescribed, and call for liver function tests to be performed every two weeks. The Canadian government believes that the drug is too dangerous to be marketed even if carefully monitored, and banned it (except in special circumstances) last fall.

"ORAP (pimozide): important labeling changes," letter issued by GATE Pharmaceuticals, September 27, 1999.

—and—

Cylert advisory letter, Abbott Pharmaceuticals, June 1999.

—and—

"Liver complications result in withdrawal of attention deficit hyperactivity disorder drug Cylert," Health Canada Advisory, September 22, 1999.

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