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# Autism Research Review

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# Manic-depression, autism connection seen

Recent reports indicate that autism and manic-depressive illness can occur together, and that lithium can be very effective in treating manic-depressive symptoms in such cases.

Lithium has been used for many years to treat bipolar disorder, a mental disorder characterized by alternating periods of mania and depression. Symptoms of mania include overactivity, reduced need for sleep, restlessness, inflated self-esteem, emotionality, and high energy. Depression is characterized by symptoms including sadness, loneliness, reduced self-esteem, apathy and lethargy.

**Two young patients treated**

Jacob Kerbeshian and fellow researchers recently reported that they have successfully used lithium to treat two autistic patients with symptoms of bipolar disorder. Both children were retarded, and both had family histories of depressive disorders.

Kerbeshian et al. report that one of the children, a four-year-old boy, showed "marked decreases in his fits of giddiness and laughter, irritability, body rocking and other stereotypies, and aggression", began to sleep through the night, and ate better when lithium was administered. He also became more aware socially and showed spontaneous affection.

Their other patient was a five-year-old girl who the researchers say "had a dramatic response" to lithium therapy. During treatment the child's speech and language improved markedly, she became less hyperactive and more effectionate, and her autistic mannerisms and need for sameness decreased.

Kerbeshian et al. speculate that the combination of manic-depressive illness and retardation may create symptoms similar to autism in some individuals. While their findings are tentative, they believe physicians might want to consider lithium therapy in autistic patients with:

– a family history of bipolar illness;
– extreme hyperactivity not responsive to stimulant drugs;
– cyclical symptoms;
– sustained laughter, irritability, or giddiness that does not resemble typical autistic stereotyped behavior; and/or,
– other symptoms of bipolar illness.

British psychiatrist C. M. Linter reports that he has successfully used lithium to treat manic-depressive behavior in an autistic-like boy who began treatment three years ago at the age of 12.

Before beginning lithium therapy, the boy had 14-day cycles of normal behavior, manic behavior, and depression. During his depressive phases, the boy became pale, did not want to eat or speak, woke early and soiled himself, cried and head-banged. During manic phases, he became aggressive, overly excited or happy, restless, and distractible; his speech was rapid and full of "flights of fancy."

Lithium therapy led to marked improvement in the boy's behavior and school work. A two-week withdrawal from the lithium led to a return of manic symptoms, which disappeared when lithium treatment was reinstated.

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## In this issue:



# Swedish studies: Evidence links autism, other disorders

Researchers world-wide are studying the possible links between autism and such disorders as manic-depression, autoimmune disorders, and Tourette Syndrome (see past ARRI issues and adjacent article on this page).

Much of the research into autism's relationship to other disorders has been done by Christopher Gillberg and colleagues in Goteburg, Sweden. Among the suspected links they have uncovered:

### AUTISM AND ANOREXIA NERVOSA

In a population study, Gillberg found four families in which an autistic boy had a close female relative with anorexia nervosa, a disorder characterized by refusal to eat. This was a 10% incidence of the disorders occurring within families – higher than would normally be expected.

Gillberg says that "it is of considerable interest that in all four [of these] families, depressive disorders occurred in first-degree relatives and...in three of the four families these disorders appeared on the branch of the family that contained both the autistic boy and the anorexic girl." He notes also that the incidence of left-handedness was very high in these families.

Gillberg cites evidence that urine tests done on anorexic girls often reveal abnormal patterns of excretion of certain metabolites – patterns similar to those seen in 50% of autistic children in a previous Gillberg study. He speculates that "there might exist a subgroup of anorexic patients who share a hereditary trait with some autistic patients."

### AUTISM AND NEUROFIBROMATOSIS

Neurofibromatosis is a hereditary disease which causes nerve tumors, cafe-au-lait spots (light-brown areas) on the skin, and abnormalities of the bones, muscles, and internal organs.

In a study by Gillberg and Christer Forsell of 51 children diagnosed as psychotic, the researchers found three children with both neurofibromatosis and autism or autistic-like behaviors. This incidence of the two diseases occurring together is 120 times greater than expected.

Gillberg and Forsell note that neurofibromatosis is often linked with a disturbance in the metabolism of substances called "monoamines", leading to high levels of HVA (homovanillic acid, formed by the breakdown of monoamines). As high HVA levels also are seen in some

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