induced aCL remains unclear. The induction of aCL requires β-2-glycoprotein-1 as a cofactor for binding to cardiolipin.[6] It is assumed that neuroleptics can increase phospholipid expression and activation on the cell membrane, inducing aCL binding to cardiolipin epitopes without involving β2-glycoprotein-1. This causes the induction of mainly IgM-aCL rather than IgG-aCL (IgG-aCL is the main isotype related to thrombosis). This might explain the lack of vascular events in these patients.

We earlier reported the presence of LA activity and IgG-aCL in a group of patients with psychosis who were not taking medication and had no clinical evidence of vasculopathy.[1] These findings, together with our present study, raise the possibility that these autoantibodies are implicated in the etiology or course of psychosis. Sirota et al[7] reported the presence of different types of autoantibodies, including aCL, in patients with schizophrenia and their healthy first-degree relatives. Firer et al[8] found aCL antibodies in both patients with schizophrenia and their relatives. Roy Chengappa et al[9] propose that raised titres of IgG-aCL may be a marker for autoimmune reactivity or may play a role in schizophrenia. To support such a possibility, both the patients and controls were tested for the presence of antinuclear antibodies. The negative result in both groups does not support this notion; however, it can not be excluded, since the sample was relatively small.

This study re-established the association between long-term treatment with neuroleptic medication and LA and elevated aCL. Further studies are needed to clarify the role of antiphospholipid antibodies in these patients.

References

1. Schwartz M, Rochas M, Weller B, Sheinkman A, Tal I, Golan D, et al. High association of anticardiolipin antibodies with psychosis. *J Clin Psychiatry* 1998;59:20-3.
2. Canoso RT, de Olivera RM, Nixon RA. Neuroleptic-associated antibodies. A prevalence study. *Biol Psychiatry* 1990;27:863-70.
3. Canoso RT, de Olivera RM. Chlorpromazine-induced anticardiolipin antibodies and lupus anticoagulant: absence of thrombosis. *Am J Hematol* 1988;27:272-5.
4. Thiagargjan P, Pengo V, Shapiro SS. The use of dilute russel viper venom time for the diagnosis of lupus anticoagulant. *Blood* 1986;48:869-74.
5. Harris EN, Gharavi AE, Patel SP, Hughes GRV. Evaluation of the anticardiolipin antibody test: report of an international workshop held 4April 1986. *Clin Exp Immunol* 1987;68:215-22.
6. Alarcon-Segovia D, Cabral AR. Antiphospholipid/cofactor syndromes. *J Rheumatol* 1996;23:1319-21.
7. Sirota P, Schield K, Firer M, Elizur A. The diversity of autoantibodies in schizophrenic patients and their first-degree relatives: analysis of multiple case families. [abstract] *Biol Psychiatry* 1990;27:118.
8. Firer M, Sirota P, Schild K, Elizur A, Slor H. Anticardiolipin antibodies are elevated in drug-free, multiply affected families with schizophrenia. *J Clin Immunol* 1994;14:73-8.
9. Roy Chengappa KN, Betts Carpenter A, Keshavan MS, Yang ZW, Kelly RH, Rabin BS, et al. Elevated IgG and IgM anticardiolipin antibodies in a subgroup of medicated and unmedicated schizophrenic patients. *Biol Psychiatry* 1991;30:731-5.

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Understanding autism: does anyone read new medical journals?

Dear Sir:

I read Dr. Peter E. Tanguay's editorial[1] with mounting interest after he started by citing Barr's 1898 case of autism,[2] since this is my first indication that anyone has read my 1982 letter drawing attention to this case.[3] Tanguay stated, "In this issue of the Journal (see page 103), Drs. Trottier, Srivastava and Walker present a remarkable review of this current literature. Their report is lively, well organized and very comprehensive." However, I was disappointed to find that this review article, with 124 references, made no mention of possible peripheral auditory defects or ear disease in autism, despite noting the relevance of sensory pathway integrity and devoting a column to auditory impairment.

For a quarter of a century I have been proposing that autism is an unusual variant of peripheral deafness.[3-24] Surely it is time that someone somewhere took this theory seriously and discussed it. If false, it should be trashed, if only to stop further valuable journal space being devoted to a nonviable theory. It is simple to the point of naïveté, so it should be easily refutable if it is incorrect. For example, all that is needed is to find some risk maker or risk marker for autism that is not also associated with middle- or inner-ear deafness.[17] I have looked quite hard and still not found one,

although I cannot find auditory data for some conditions, such as tuberous sclerosis.

In the review article, one sentence alone excludes primary brain damage in autism: "The intellectual competency of children with autism ranges from profound mental retardation to superior intelligence." What other developmental condition, with proven brain lesions, has this same IQ distribution and pattern of verbal and nonverbal IQ?

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References

1. Tanguay PE. Understanding autism — a work in progress. *J Psychiatry Neurosci* 1999;24:95-6.
2. Barr MW. Some notes on echolalia, with the report of an extraordinary case. *J Nerv Ment Dis* 1898;25:21-30.
3. Gordon AG. Does anyone read old medical journals? (letter) *Am J Psychiatry* 1982;139:259.
4. Gordon AG. Reading ability in disturbed children. *J Autism Child Schizophr* 1975;5:283.
5. Gordon AG. Perilymph fistula: a cause of auditory, vestibular, neurological and psychiatric disorder. *Med Hypotheses* 1976;2:125-34.
6. Gordon AG. Perilymph fistula, otitis media and deficits in language acquisition. *Dev Med Child Neurol* 1976;18: 683-4.
7. Hayes RW, Gordon AG. Auditory abnormalities in autistic children. *Lancet* 1977;2:767.
8. Gordon AG. Fluctuating deafness and autism (letter). *J Autism Child Schizophr* 1977;7:115-6.
9. Gordon AG. Rubella deafness and autism. *J Autism Child Schizophr* 1978; 8:257-9.
10. Gordon AG. Peripheral vestibular pathology in schizophrenic infants. *Arch Gen Psychiatry* 1979;36:1462-3.
11. Gordon AG. Papers in preparation by AG Gordon. *Signpost* 1983;2:12-6.
12. Gordon AG. Abnormal middle ear muscle reflexes and audiosensitivity. *Br J Audiol* 1986;20:95-9.
13. Gordon AG. Glue ear and speech development. *BMJ* 1986;293:1024.
14. Gordon AG. Some comments on Bishop's annotation "Developmental dysphasia and otitis media." *J Child Psychol Psychiatry* 1988;29:361-8.
15. Gordon AG. Ear disease in Landau-Kleffner syndrome (LKS) and in adult psychiatry (letter). *Can J Psychiatry* 1989;34:77-8.
16. Gordon AG. Ear disorders in autistic children. *J Autism Dev Disord* 1989;19: 470-3.
17. Gordon AG. Co-occurrence of deafness and infantile autism (letter). *Am J Psychiatry* 1991;148:1615.
18. Gordon AG. Peripheral audiosensitivity (letter). *Br J Psychiatry* 1992;160: 720-1.
19. Gordon AG. Aphasia, deafness, or mental retardation (letter). *J Med Genet* 1993;30:262.
20. Gordon AG. Interpretation of auditory impairment and markers for brain damage in autism. *J Child Psychol Psychiatry* 1993;34:587-92.
21. Gordon AG. Alcohol, deafness, epilepsy and autism. *Alcohol Clin Exp Res* 1993;17:926-7.
22. Gordon AG. Schizophrenia and the ear (letter). *Schizophr Res* 1995;17:289-91.
23. Gordon AG. Do musical hallucinations always arise from the inner ear? *Med Hypotheses* 1997;49:111-22.
24. Gordon AG. Early seizures after closed head injury (letter). *Can J Neurol Sci* 1997;24:359-60.

[The author replies:]

Thank you for your 1982 letter calling attention to Barr's case report. I did not enter the letter into my reference collection at the time; hence, I was unable to credit you for this help. Does auditory dysfunction lead to autism? Auditory event-related potentials have not reliably identified brainstem abnormalities in autistic children. Solid, replicable and convincing evidence of central or peripheral auditory dysfunction will be needed before we can attribute autism to this cause.

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