Letters to the Editor

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Noninfectious Thrombosis of the Superior Sagittal Sinus in a Patient With Iron Deficiency Anemia

To the Editor:

Noninfectious thrombosis of cerebral veins is commonly found in patients with hereditary coagulation or immunologic disorders and during pregnancy or intake of contraceptive drugs. Severe cases are often lethal.

A 46-year-old male patient, who had been previously well, was admitted to our intensive care unit with symptoms of nausea, dizziness, pustule tinnitus, bradycardia, and iron deficiency anemia. On the fifth day after admission, the patient experienced a paresis of his left arm and, on the seventh day, a paresis of the right abducens nerve. Angiography of the cerebral veins, computed tomography, and magnetic resonance imaging (MRI) showed an approximately 5-cm-long thrombosis of the superior sagittal sinus, beginning at the confluens sinuum. Our further examinations did not reveal any other known causes of cerebral vein thrombosis.

This patient's iron deficiency anemia was caused by chronic blood loss due to a prolapse of the lower rectum. After anticoagulant treatment with high-dose intravenous heparin for 3 weeks, MRI showed recanalization of the sagittal sinus. Paresis of the arm and the abducens nerve, pustule tinnitus, bradycardia, and nausea all disappeared and were retrospectively interpreted as signs of high intracerebral pressure. Following surgical resection of the rectal prolapse, the patient received further anticoagulant therapy with phenprocoumon and was discharged from the hospital in good health.

Iron deficiency anemia coinciding with cerebral vein thrombosis has been reported in four patients: in a 22-month-old boy with iron deficiency anemia and thrombocytosis;1 in a young woman with hypochromic anemia and thrombosis following surgery;2 and in two women with anemia due to chronic bleeding from myoma uteri.3 In two cases, thrombocytosis associated with anemia was assumed to cause cerebral vein thrombosis. However, in the 2 women with myoma uteri and in our patient, thrombocyte counts were normal. Other pathogenetic considerations might include rheological phenomena resulting from a relative anemia in the venous sinus system where negative pressure values prevail, or a hypercoagulable state due to chronic blood loss. However, in neither case were parameters indicating coagulation disorders found.

With this report, we have sought to focus attention on iron-deficiency anemia, a frequent disorder, coinciding with thrombosis of the cerebral veins, a rare and sometimes lethal disease.

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References


Vascular Headaches and the Anticardiolipin Antibodies

To the Editor:

Your recent publications from The Antiphospholipid Antibodies in Stroke Study Group and Coull and Goodnight reflect the important role of antibodies against phospholipids in many different pathological conditions. In recent years, interest has been growing in neurological syndromes, including migraine, that are associated with antiphospholipid antibodies. Since Brandt and Lessel first reported the presence of antiphospholipid antibodies in two of 11 patients with migraine and systemic lupus erythematosus, 27 more cases of migraine with antiphospholipid antibodies have been described.4-9 However, some investigators have felt that headache might simply be a common feature in patients with antiphospholipid antibodies, and that these patients would present primarily to neurologists.

In order to test whether antiphospholipid antibodies play a role in primary headaches, we recently measured anticardiolipin antibody levels in migraine patients during and between acute attacks and in cluster headache patients during cluster periods and in acute attacks. All suffered from only one or the other of these illnesses, without evidence of any associated disease, particularly of any autoimmune disease or other known manifestations of antiphospholipid antibodies such as thromboses, episodes of thromboembolism, or strokes.

In 94 consecutive migraine patients aged 18-50 years (11 studied during acute attacks)10 and 20 consecutive male cluster headache patients aged 31-70 years (11 in the cluster period, three during acute attacks; R. Hering, E.G.M. Couturier, R.A. Asherson, and T.J. Steiner, unpublished observations), no elevations were found of anticardiolipin antibody levels assayed by the method of Gharavi et al.11 The 95% confidence intervals for these zero observations in 94 migraine patients and 20 cluster headache patients were 0-3.9% and 0-17%, respectively. Manoussakis et al.12 found high anticardiolipin antibody levels in 2.3% of healthy blood donors (95% confidence interval, 0.9-5.1%). These findings suggest no specific association between anticardiolipin antibody and migraine or cluster headache, and certainly no importance of anticardiolipin antibody in their etiopathogenesis.

In other studies in which antiphospholipid antibody levels have been elevated in migraine, all affected patients have had other neurological or systemic complications in addition. The most reasonable conclusion is that the elevated antiphospholipid antibody levels were related to these other conditions, migraine being coincidentally associated, with a normal prevalence of approximately 10%.

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