Rheumatic chorea and lupus anticoagulant

Two patients were diagnosed as Sydenham's chorea out of 322 patients seen in our movement disorders clinic in 1991–3. Both had lupus anticoagulant.

Patient 1 was a 15-year-old girl who had had three attacks of generalised chorea within two years. The first attack occurred a month after a pharyngitis episode; it was the most severe and the longest, lasting five months. Because of the choreiform hyperkinetic movements were severe and only slightly improved by sodium valproate (1500 mg daily) and haloperidol (3 mg daily), corticosteroid treatment was required for two months (prednisone, initial dosage 40 mg daily). She had a history of asthma, which was treated with cromoglycate, and frequent episodes of pharyngitis. There was no other relevant personal or family history. Her physical examination was normal. Laboratory investigations showed an antistreptolysin-O titre between 300 and 621 Todd units (normal <250). Several determinations of partial thromboplastin time during the first attack of chorea showed prolonged values (57 sec; control 32-5 sec), not corrected by the addition of normal plasma.

In the two subsequent relapses of chorea only a slight prolongation of the activated partial thromboplastin time was detected. Anticardiolipin IgG antibodies ranged between 6-9 and 19 U. GPL/ml (normal <15). Anticardiolipin IgM antibodies concentrations were normal. Brain MRI showed a slight asymmetry of the frontal horns of the lateral ventricles, but there was neither change of signal nor gadolinium enhancement. Since February 1993, she has remained asymptomatic, just receiving prophylactic treatment with intramuscular penicillin.

Patient 2 was a 12 year old girl who presented with mild generalised chorea in July 1992. No other neurological or systemic abnormalities were seen. One year earlier she had had a pharyngitis episode followed by fever and migratory polyarthritis. There was a family history of rheumatic fever without chorea. Laboratory investigations showed antistreptolysin-O titres between 300 and 460 Todd units, and prolonged activated partial thromboplastin time (39 sec; control 30 sec) not corrected by the addition of normal plasma. Anticardiolipin antibody concentrations were normal. Brain MRI was normal. The patient was treated with sodium valproate (1000 mg daily) and prophylactic intramuscular penicillin, and the choreic movements disappeared within the next few months. Although an increased titre of antistreptolysin-O antibody is still present, subsequent coagulation studies have been normal.

Extensive investigations showed no other abnormalities in either case. Thus two patients with rheumatic chorea and prolonged activated partial thromboplastin time are reported. Although more specific coagulation tests were not done, lupus anticoagulant is the most probable explanation for the increased activated partial thromboplastin time detected in both cases. In patient 1, a high titre of anticardiolipin IgG antibodies was also detected. Rheumatic fever and lupus anticoagulant are two known causes of immunologically mediated chorea, and lupus anticoagulant seems to represent the main biochemical abnormality responsible for chorea in systemic lupus erythematosus. Although lupus anticoagulant has been associated with chorea gravidarum, and anticardiolipin antibodies with rheumatic fever, to our knowledge, lupus anticoagulant had not been reported in patients with rheumatic chorea.

Although little is known about the role of antiphospholipid antibodies, anticardiolipin antibodies seem to be unrelated to the rheumatic chorea pathogenesis. Other protein determinations responsible for lupus anticoagulant and anticardiolipin antibodies have however, been isolated. Therefore, the antineuronal antibodies responsible for rheumatic chorea could be more related to lupus anticoagulant than to anticardiolipin antibodies.

RAUL DE LA FUENTE FERNANDEZ
Service of Neurology, Hospital Juan Canalejo, La Coruña, Spain

Correspondence to: Dr Raúl de la Fuente Fernández, Servicio de Neurología, Hospital Juan Canalejo, Xubias de Arriba, 84 15006 La Coruña, Spain.


Acute peripheral neuropathy, rhabdomyolysis, and severe lactic acidosis associated with 3243 A to G mitochondrial DNA mutation

Neuropathy can be a complication of progressive external ophthalmoplegia, but is rare in mitochondrial myopathy, encephalopathy, lactic acidosis, and stroke-like episodes (MELAS). We report here a case of mitochondrial cytopathy with these unusual manifestations.

The patient is a 33 year old woman who had a normal birth and early development. When she was aged 30, after the stillbirth of her first child, she had a spontaneous remitting myalgia of her thigh muscles. At the age of 32 she had intermittent headaches and nausea after physical work. At the age of 33, during her second pregnancy, she felt numbness in her toes and weakness in her legs, which spread to all four extremities over three weeks. She also developed facial weakness. Simultaneously, intramuscular muscle damage occurred and abortion had to be induced. By that time she was too weak to walk. She was diagnosed as having Guillain-Barré syndrome and was given betamethasone (8 mg/day) for two days. This was not effective, and she was transferred to our hospital.

Examination on admission on 16 October 1991 showed average height and
weight, mild, diffuse upper limb weakness, and severe lower limb weakness. The weakness was predominantly distal and deep tendon reflexes were absent in all four limbs. All sensation modalities were impaired in her cheeks, trunk, and limbs, predominantly distal. She complained of dysaesthesia in her left cheek, forearm, and legs. She could barely stand with support. Mild myalgia was present in the thigh muscles. Laboratory tests showed a moderate increase in serum creatine kinase (496 IU/l) and a further increase in lactate dehydrogenase and pyruvate dehydrogenase. Her blood and urine samples were still normal in all conventional checks, and there was no evidence of pyruvic acidosis.

The patient was admitted to the hospital on the third day in the morning. There was some improvement in her condition, and her weakness was reduced to about 70 in the legs. There was no sign of ophthalmoplegia, and the visual fields and visual acuities were normal. All cranial nerve checkings were normal, with MELAS.

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H Hara, Y Wakayama, Y Kouno, H Yamada, M Tanaka and T Ozawa

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