Letters to the Editor

Acute crescentic glomerulonephritis developing during warfarin therapy

Sir,

Anticoagulants, together with immunosuppressive and antiplatelet therapy, have been advocated for the treatment of acute crescentic (rapidly progressive) glomerulonephritis (Kincaid-Smith et al., 1970; Brown et al., 1974). The use of anticoagulants is based on the histological demonstration of glomerular fibrin (Hoyer et al., 1974), and evidence of consumption of coagulation factors in clinical and experimental rapidly progressive glomerulonephritis (Cameron, 1976). We have recently seen a case which calls into question the rationale for the use of anticoagulants in this situation.

A 71 year old man had undergone arterial bypass surgery for peripheral vascular disease 12 years previously, since which time he had been treated with warfarin. At a routine clinic visit, his prothrombin time, which until then had been consistently within the usual therapeutic range, was found to be greater than 120 seconds (control 13 seconds). Blood chemistry included urea 86 mmol/l, creatinine 1900 µmol/l, potassium 8.3 mmol/l. Renal ultrasonography revealed normal kidney size and architecture. After correction of the clotting defect with vitamin K and fresh-frozen plasma, percutaneous renal biopsy was performed. This revealed an acute crescentic glomerulonephritis with 70% of glomeruli affected by circumferential crescents. Immunofluorescence showed intense fibrin deposition in glomeruli, mesangium, and capillaries, but no immunoglobulin deposition. Serum complement levels and immunoglobulins were normal, and tests for circulating immune-complexes were negative. Antibodies to glomerular basement membrane, nuclei, and double-stranded DNA were not detected. There was no clinical or histological evidence of a vasculitis or other systemic disease. The patient therefore had an idiopathic (nil immune deposit) crescentic glomerulonephritis (Stilmant et al., 1979). He was treated with peritoneal dialysis, prednisolone, cyclophosphamide, and plasmapheresis, with eventual recovery of renal function and discharge from hospital.

Despite the fact that this patient was receiving anticoagulant therapy with a prothrombin-time consistently within or above the therapeutic range, he developed a diffuse crescentic glomerulonephritis, the predominant feature of which was intense fibrin deposition. We conclude from this case that intraglomerular fibrin deposition in rapidly progressive glomerulonephritis is not necessarily dependent upon the activation of coagulation pathways leading to thrombin formation, but presumably derives from platelet-dependent coagulation. This is in keeping with the observation that glomerular fibrin deposition is not associated with demonstrable factor VIII antigen (Hoyer et al., 1974), suggesting that the generation of fibrin is independent of thrombin formation by the classical coagulation cascade.

In the absence of any controlled trials demonstrating their efficacy in this situation, we would suggest that anticoagulation with warfarin or heparin, with their inherent risks, has no role in the treatment of idiopathic crescentic glomerulonephritis.

J.H. Turney*
J. Michael
D. Adu
Queen Elizabeth Hospital Edgbaston, Birmingham B16 2TH, UK.

*Present address: Leeds General Infirmary, Leeds LS1 3EX, UK.

References


Asymptomatic Graves’ disease during lithium therapy.

Sir,

The patient reported by Drs Thompson & Baylis (1986) developed hyperthyroidism, while on lithium treatment. It was suggested that the drug had stimulated the thyroid antibody production. Eleven more cases of this syndrome had been described, and 5

© The Fellowship of Postgraduate Medicine, 1986
other lithium-treated cases had hyperparathyroidism (MacGregor, 1977). A case of mine indeed had both hyperthyroidism and a parathyroid adenoma, which was excised (MacGregor, 1977). It would be valuable to know whether the present case had the ‘autoimmune’ HLA antigen in her lymphocytes. An earlier immune process of some sort is likely to have sparked-off the hypersecretion in these patients.

Gerald A. MacGregor
Percy Place,
31 Epsom Road,
Guildford GU1 3LA.

References


This letter has been shown to Drs Thompson and Baylis who reply:

Sir,
The association of lithium treatment and thyrotoxicosis has, as Dr MacGregor suggests, been reported previously. Our patient differed from the case reported by Dr MacGregor in his letter to the Lancet, and indeed from the majority of other cases in the literature, by demonstrating clear evidence of Graves’ disease, with high titres of circulating thyroid autoantibodies, and marked ophthalmopathy. We have not determined her HLA typing.

C.J. Thompson
P.H. Baylis
Endocrine Unit,
The Royal Victoria Infirmary,
Queen Victoria Road,
Newcastle upon Tyne,
NE1 4LP, UK.