Simultaneous Finding of Diabetic Glomerulosclerosis and Macroscopic PAN-Type Necrotising Vasculitis in the Same Patient

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Dear Sir,

The recent publication, entitled 'Concomitant presence of three different glomerular diseases in one patient' by Bertani et al. [1], leads us to describe a patient with simultaneous presentation of diabetic glomerulosclerosis and macroscopic polyarteritis nodosa-type necrotising angiitis. This was a coincidental finding with no etiological relationship, which we have not found previously described in the literature.

The patient was a 19-year-old man diagnosed of type-I diabetes mellitus at the age of 8, treated with insulin since 1973. In July 1980, he presented ketoacidosis which required hospital admission. Blood pressure and renal function were normal and there was no proteinuria. In December of the same year, hypertension and oedemas were found and a salt-free diet and diuretics were begun. In February 1981, he was admitted due to hypertensive encephalopathy (blood pressure 200/120 mm Hg, grade-III retinopathy without microaneurysms). He complained of a recent clinical history of polyneuropathy in the lower limbs.

Physical examination was anodyne. Nephrotomograms showed the two kidneys to be of normal size. Electromyography: mixed polyneuropathy showing moderate axonal and demyelination changes. Blood tests: ESR 118, glucose 285 mg/100ml (15.8 mmol/l), red blood cells 3.3×10^6 , Hb 9.7 g/l, tests for hemolysis negative, creatinine 0.9 mg/100 ml (79.56 mmol/l), urea 35 mg/100 ml (5.81 mmol/l), proteinuria 0.7–1.0 g/24 h, sediment normal. The proteinuria registered 2 months before entry ranged from 1.2 to 2.7 g/24 h. Immunohaematological studies were normal and HbsAg negative.

On admission he required sodium nitroprusside to control hypertension, and later propranolol-hydralazine. Insulin requirements were greater than 72 U of rapid insulin per day, all attempts to control glycemia with long-acting insulin failing.

Due to persistent proteinuria and marked hypertension in the absence of microaneurysms in the fundus, a percutaneous renal biopsy was performed which showed diabetic mesangial glomerulosclerosis and necrotising vasculitis of the intercortico-medullary and arcuate arteries suggesting PAN-type vasculitis. An angiographic study was not performed due to the patient being a diabetic.

Cyclophosphamide treatment was initiated at a dose of 2 mg/kg/day for a total of 5 months. No steroids were added in order to not increase insulin needs. The polyneuropathy greatly improved, proteinuria diminished to physiological levels. In May 1981, renal function deteriorated slightly due to bad control of hypertension, but resolved on attaining normal blood pressure with capto-

pril and thiazides. Hyperglycemia was controlled by continuous subcutaneous infusion of insulin administered by a pump.

In November 1981, after 7 months of treatment, cyclophosphamide was discontinued, no new signs of reactivation of disease having been noted to date. In November 1983, creatinine was 1.9 mg/100 ml (167.96 mmol/l), urea 80 mg/100 ml (13.28 mmol/l), ESR 8, proteinuria 1.5 g/day, glycemia 185 mg/100 ml (10.2 mmol/l), treatment with 75 mg of captopril, 50 mg of thiazides and 67 U of insulin per day divided into three doses.

Little is known about the simultaneous finding of two etiologically different glomerular diseases in the same patient [1]. The association with diabetic glomerulosclerosis most commonly described in the literature have been membranous glomerulonephritis, acute glomerulonephritis and minimum change nephrotic syndrome, followed by the less frequent association with dense deposit glom-

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erulonephritis, lupus, amyloidosis, sarcoidosis, IgA nephropathy, etc. [1, 2].

The absence of diabetic retinopathy as well as the appearance of urine abnormalities or alteration in renal function incompatible with the natural history of diabetic nephropathy, compels one to suspect the presence of another type of nephropathy susceptible to treatment, which is why in such situations it is advisable to perform a renal biopsy as occurred with our patients.

eases in the same patient. Report of a case and review of the literature. Nephron 34:260–266 (1983).

Kasinath, B.S.; Mujais, S.K.; Spargo, B.H.; Katz, A.I.: Nond-iabetic renal disease in patients with diabetes mellitus. Am. J. Med. 75:613–617(1983).

References

1 Bertani, T.; Olesnicky, L.; Abu-Regiaba, S.; Glasberg, S.; Pirani, C.L.: Concomitant presence of three different glomerular dis-