Letters to the editor

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Early recurrence of Wegener's granulomatosis in a kidney allograft under cyclosporine treatment

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Wegener's granulomatosis is a rarely occurring disease with a still unknown etiology. It mainly affects the upper and lower respiratory tracts and the kidneys. Although cyclophosphamide, a cytotoxic drug, is known to inhibit the progression of the disease in most cases, some patients may develop renal failure [3]. Renal transplantation has been performed successfully in these patients. Immunosuppression with azathioprine and steroids has been reported not only to prevent rejection of the graft but also to control the disease in the majority of recipients [5]. Recurrence of the disease within the graft, however, has been recorded [2, 6]. On the other hand, the beneficial effect of cyclosporine in the treatment of Wegener's granulomatosis has also been demonstrated [1, 4].

We report here the case of a 34-year-old woman with Wegener's granulomatosis. In October 1981, the patient was admitted to the hospital with fever, sinusitis, and recurrent pulmonary infiltrates. Despite long-term treatment with cyclophosphamide, which was later replaced by prednisolone and azathioprine and led to a significant improvement of pulmonary lesions, renal function started to deteriorate in 1983. Two years later, hemodialysis was started.

On 23 July 1987, the patient received a cadaveric renal allograft. Immunosuppression consisted of cyclosporine (trough levels ranging from 200 to 600 ng/ml, cyclosporine RIA-KIT, Sandoz), prednisolone, and azathioprine. The latter had to be discontinued on day 5 because of leukopenia. The early postoperative course was otherwise uncomplicated with normal serum creatinine levels at the end of the 1st postoperative week. On day 19, the patient developed a 39 °C fever for the first time. A chest X-ray disclosed a progression of the preexisting lesions in the right lung. From day 31 on, renal function started to deteriorate, reaching a serum creatinine level of 5.7 mg% 4 days later. The biopsy of the renal allograft taken at this time revealed a fibrinoid necrosis of a small artery and a segmental fibrinoid necrosis of capillary loops in a freshly afflicted glomerulus, demonstrating early recurrence of We-

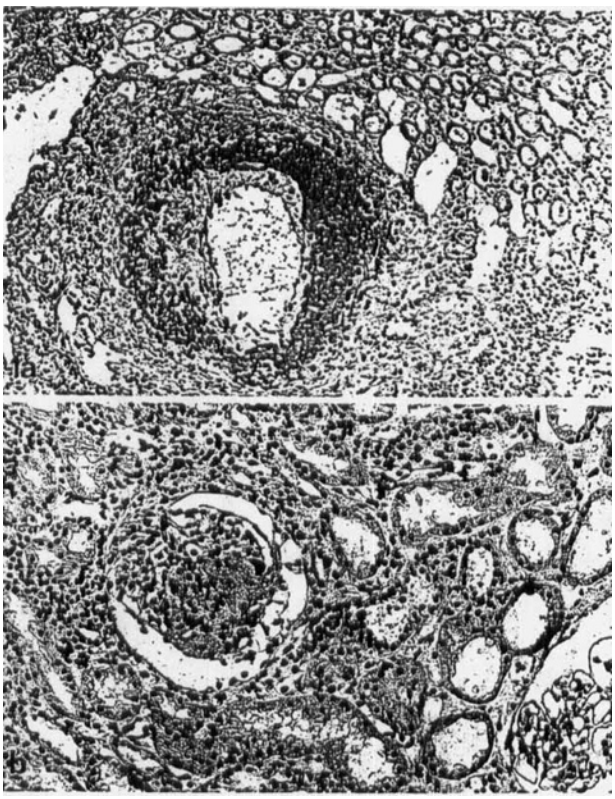

Fig. 1. **a** Fibrinoid necrosis of a small artery (hematoxylin-eosin, ×120). **b** Segmental fibrinoid necrosis of capillary loops in a freshly afflicted glomerulus (hematoxylin-eosin, ×250)

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gener's granulomatosis in the graft (Fig. 1). Anticytoplasmic antibody titers exceeded 1:32, also indicating active Wegener's disease [7]. Since this happened under cyclosporine, we switched the patient to cyclophosphamide (2 mg/kg) and increased the steroid dosage to 1 mg/kg. The patient responded dramatically and 4 days later the anticytoplasmic antibody titer was already down to 1:4. She was discharged 1 month later in good health with a sufficiently functioning allograft (serum creatinine 2.2 mg%, creatinine clearance 45 ml/min). The chest X-ray showed complete disappearance of all new lesions.

This case demonstrates that Wegener's granulomatosis may occur very early in a kidney allograft despite cyclosporine treatment but that it can be reversed by an immediate change of immunosuppressive therapy to cyclophosphamide. Thus, it may well be that for this specific type of autoimmune disease, cyclophosphamide is more effective than cyclosporine.

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