

## Sepsis and Death after Embolization of Host Kidneys in a Resistant Renal Hypertension Transplanted Patient

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Dear Sir,

In patients who retain their native kidneys after transplantation the incidence of hypertension after 6 months from operation approaches 80% in some series [1, 2]. The causes of hypertension have been attributed to rejection, hypercalcemia, steroid excess, diseased native kidneys, renal failure and allograft renal artery stenosis. Bilateral host kidney embolization has recently been used to control severe arterial hypertension in selected renal transplant patients.

We report a case of a transplanted patient with severe hypertension who markedly improved after bilateral embolization of native kidneys but eventually developed fever, perinephric abscess, acute rejection and finally died. A 11-year-old girl (50 kg body weight) had been diagnosed as being glomerulonephritic in 1982. She had severe hypertension (180/120 mm Hg) and end-stage renal failure (serum creatinine was 13.1 mg/dl). She started CAPD in January 1983 and hemodialysis (HD) in April 1984 (fig. 1). Three months later she received a cadaveric renal transplant. In September 1984 the patient came to

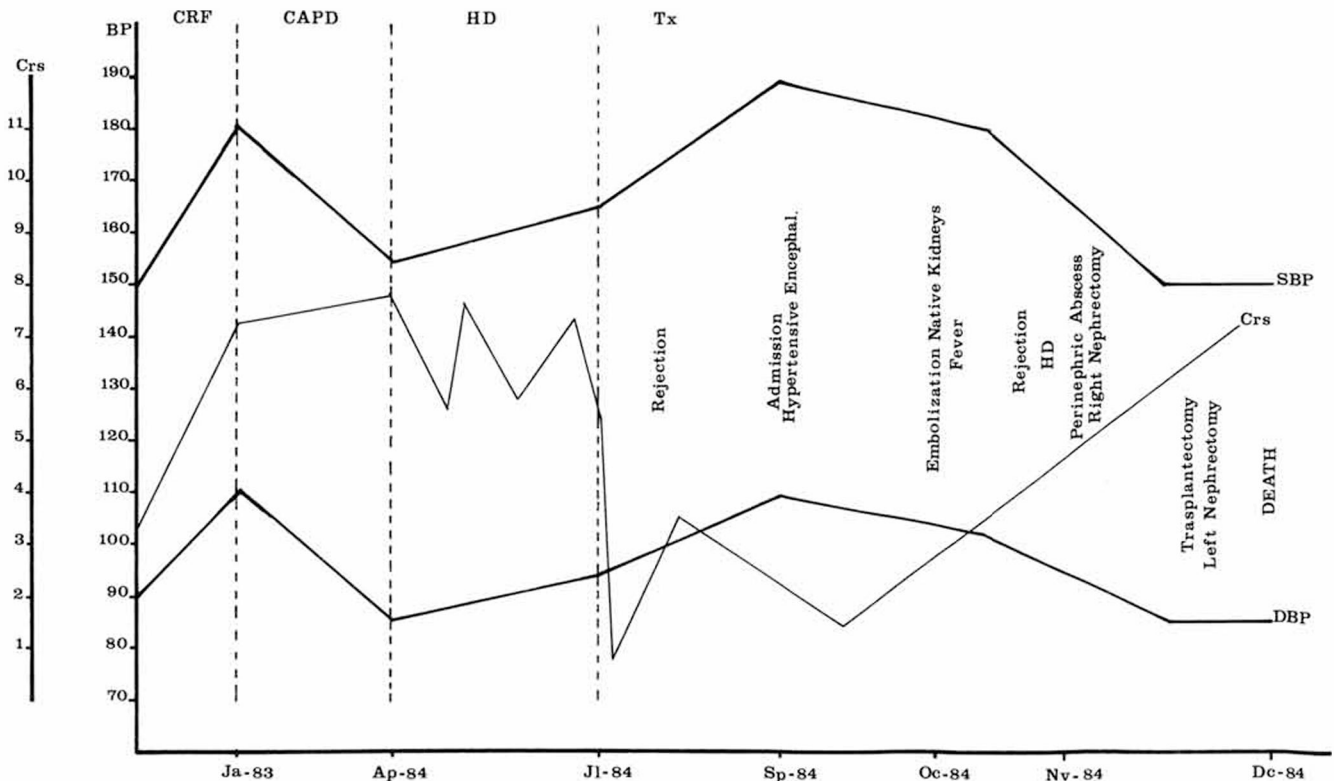


Fig. 1. Clinical course of the patient. CRF = chronic renal failure; CAPD = continuous ambulatory peritoneal dialysis; HD = hemodialysis; Tx = transplantation; Crs = serum creatinine; BP = blood pressure, SBP = systolic BP; DBP = diastolic BP.

the emergency unit because of hypertensive encephalopathy (blood pressure 195/125 mm Hg, seizures and coma). An angiographic study of the graft and native kidneys showed normal graft and intrarenal vessels. Native kidneys were about 7 cm in length.

A bilateral embolization of native kidneys was carried out in October 1984 by infusing 4 ml of 95% ethyl alcohol in both renal arteries according to the technique proposed by Becker et al. [3]. Complete occlusion of renal vessels was observed after a new angiographic evaluation. Three days later, serum creatinine was 2.3 mg/dl. Physical examination revealed a temperature of 38.5°C. *Escherichia coli* grew in blood cultures and antibiotics were instituted. A graft biopsy was considered and a histological picture of mixed cellular-vascular rejection was demonstrated. The patient returned to HD in November 1984. A perinephric abscess was diagnosed and confirmed by surgery. A right nephrectomy was done. Ten days later the patient was still in a state of sepsis and transplantectomy and a left nephrectomy was recommended. *E. coli* grew in both pieces from nephrectomy. One week later the patient had a cardiac arrest and died.

Our patient had a severe form of renal hypertension, persisting even after a successful renal transplant. Presor activity of native kidneys could be a possible cause (renal vein renin concentrations in September 1984 were: LRVR (left) 20.4 ng/ml/h; RRVR (right): 18.6 ng/ml/h; graft vein renin concentration: 15.8 ng/ml/h. Bilateral embolization of the native kidneys was followed by im-

proved control of blood pressure but the patient developed a sepsis by *E. coli*. Some authors [3] make controversial recommendations that broad-spectrum antibiotics must be administered starting the night before the embolization and continuing for 5 days afterwards. Unfortunately our patient had not been treated with antibiotics prior to embolization and had been receiving corticosteroids before the procedure. Either or both of these factors in addition to a possible contamination of the catheters could have contributed to the formation of the abscess and sepsis.

### References

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