Cyclophosphamide Pulse Therapy in Frequently Relapsing Nephrotic Syndrome

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Dear Sir,

Gandhi and Thomas [1] report success with pulse cyclophosphamide therapy in frequently relapsing nephrotic syndrome. Using a similar regime, I have also observed a favourable outcome for this condition.

A 23-year-old male presented with generalised oedema. Urinary protein excretion was 7.2 g/day, serum albumin 18 g/l (1.8 g/dl) and serum creatinine 0.10 mmol/l (0.9 mg/dl).

Urinalysis did not show haematuria. Renal biopsy was normal when examined by light and immunofluorescent microscopy. Remission of nephrotic syndrome occurred following steroid therapy, but relapse occurred shortly after stopping treatment. Despite two courses of oral cyclophosphamide (2 and 2.5 mg/kg body weight), a course of chlorambucil 6 mg daily and treatment with cyclosporin 5-7 mg/kg body weight for 20 months, he remained steroid dependent and experienced 14 relapses during the next 7 years. During a relapse 5 years after diagnosis, acute renal failure developed which required dialysis. Renal biopsy on this occasion showed mild interstitial oedema. Immunofluorescent microscopy showed IgM 1+ in the mesangium.

Due to failure of all other therapies, he was treated with monthly intravenous cyclophosphamide 0.5 g/m² body surface area (equivalent to 12.5 mg/kg body weight) for 6 months. During this time he continued prednisolone 40 mg on alternate days, known to be sufficient to maintain remission of nephrotic syndrome. Prednisolone was stopped 2 weeks after the last dose of cyclophosphamide.

There has been no recurrence of nephrotic syndrome 6 months later. No side-effects of treatment were apparent. Although spontaneous remission of nephrotic syndrome cannot be excluded, this experience supports that of Gandhi and Thomas [1] and suggests that consideration should be given to pulse cyclophosphamide in steroid-dependent minimal-lesion nephrotic syndrome which is refractory to conventional therapy.

Reference

Gandhi R, Thomas C: Cyclophosphamide pulse therapy in frequently relapsing nephrotic syndrome. Nephron 1990; 55:444.