activity may be limited. Unwanted effects, reflecting its central and autonomic nervous system activity, include insomnia, nervousness, dry mouth, constipation, and excessive sweating. These would not induce toxicity and it seems in our case that mazindol's anorexic activity caused the intoxication.

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Intravenous methylprednisolone in minimal change nephrotic syndrome

Prednisone by mouth in large doses usually reverses minimal change nephrotic syndrome but there may be severe side effects, particularly in patients with frequent relapses. We therefore tried a new regimen beginning with three consecutive pulses of intravenous methylprednisolone and following these with prednisone by mouth in low doses.

Case reports

Eleven patients aged from 4 to 46 were admitted to the study. All had a nephrotic syndrome defined on the basis of hypoalbuminaemia (<25 g/l) and proteinuria (>40 mg/m²/h). Renal biopsy specimens from seven patients by light and electron microscopy showed minimal glomerular changes. All patients had highly selective proteinuria as assessed by the clearances of IgG and transferrin. Remission was defined as three consecutive days without proteinuria and relapse as finding proteinuria (>4 mg/m²/h) on three consecutive examinations within seven days. Patients were classified as frequent relapsers if they relapsed more than once within six months of their first response or four times within any one year.¹

Methylprednisolone (15-20 mg/kg) was given intravenously over 20-30 min every 24 h for three consecutive days. After this prednisone (20 mg/m²/24 h) was given by mouth for four weeks. The dose was then reduced to 20 mg/m² every other day. This continued for five months and then progressively tapered off and stopped. In patients who relapsed the regimen was restarted.

All the patients had a complete remission, generally within 10 days (table). Three relapsed after 28, 180, and 380 days. They responded to a new course of intravenous methylprednisolone and had no further relapses. Two patients complained of flushing during methylprednisolone infusion, but it ceased a few minutes after the infusion stopped. No sign of hypercorticism, infections, or other complications referable to corticosteroids were observed.

Results in 11 patients with minimal change nephrotic syndrome treated with modified corticosteroid regimen

Case No	Age (years) and sex	Episode of nephrotic syndrome	Response to treatment	Duration of remission (days)	Relapse	Response to treatment	Duration of remission (days)
1	9 M	Frequent relapser	Remission	700	No	—	—
2	11 M	Frequent relapser	Remission	380	Yes	Remission	300
3	8 F	First	Remission	455	No	—	—
4	12 M	Frequent relapser.	Remission	180	Yes	Remission	180
5	22 F	Second	Remission	270	No	—	—
6	46 F	First	Remission	28	Yes	Remission	240
7	5 M	First	Remission	230	No	—	—
8	4 M	First	Remission	210	No	—	—
9	16 M	Frequent relapser	Remission	180	No	—	—
10	22 M	Second	Remission	150	No	—	—
11	12 M	First	Remission	150	No	—	—

Comment

Treatment with 60 mg/m²/day prednisone by mouth for a few weeks may obtain a remission of the nephrotic syndrome in most patients with lipoid nephrosis. This regimen is generally well tolerated but signs of hypercorticism may develop. Moreover, many patients relapse and treatment has to be lengthy, increasing the risk of severe side effects and even death.² On the other hand, patients with frequent relapses respond abnormally to ACTH.³ This suppression of the hypothalamic-pituitary-adrenal axis, possibly induced by protracted prednisone treatment in high dosage, might promote a relapse. The best schedule of steroid administration in lipoid nephrosis is therefore still uncertain.

The urine became protein free in all our patients and a remission was reached even in frequent relapsers. Three patients with heavy proteinuria in relapse rapidly responded to further treatment with intravenous methylprednisolone. None of our patients suffered from hypercorticism or other side effects. These preliminary results seem to indicate that our regimen might be effective and well tolerated in most patients with lipoid nephrosis.

¹ Abramowicz M, Arneil GC, Barnett HL, *et al.* Controlled trial of azathioprine in children with nephrotic syndrome. A report of the international study of kidney disease in children. *Lancet* 1970;ii:959-61.

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³ Leisti S, Hallman N, Koskimies O, Perheentupa J, Rapola J, Vilks J. Association of postmedication hypocortisolism with early first relapse of idiopathic nephrotic syndrome. *Lancet* 1977;ii:795-6.

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Oral contraceptives and pituitary adenomas

An association between oral contraception and prolactin-secreting pituitary adenomas has been suggested by several recent studies. Sherman *et al.*¹ for example, reported that 30 out of 42 women with amenorrhoea and hyperprolactinaemia who were surgically treated for a pituitary adenoma had taken oral contraceptives for an average of 2.4 years. Hardy *et al.*² found that 60 out of 80 patients with surgically proved prolactinoma had used oral contraception. Reports such as these prompted us to examine the relevant data accumulated in the two major British prospective surveys of women using oral contraception—namely, the Royal College of General Practitioners' (RCGP) study and the Oxford/Family Planning Association (FPA) study. Both of these studies began in 1968 and have been described elsewhere.^{3,4}