urine output (p<0.05) and decrease in weight (p<0.01) after the infusion were significant.

Albumin was not given rapidly, but as part of the daily fluid requirements and at the same rate. This method of infusion seems unlikely to cause an appreciable volume expansion with an acute increase in glomerular filtration rate and loss of solutes. This hypothesis is supported by the lack of change in urea and electrolytes after the albumin infusion (results section). Albumin concentrations were only measured daily (methods section), the post infusion concentration thus reflects the amount remaining in the vascular space at that time, in infants in whom protein leaks are well recognised.2

The aim of our preliminary study was to investigate, using infants as their own controls, if albumin infusion was effective in treating hypoalbuminaemia in normotensive sick infants.1 We were able to show that albumin infusions were effective and associated with a significant increase in urine output. Using these data we have now designed a randomised controlled trial to investigate the duration of effect of albumin infusions and if this treatment alters clinical status.

References

Cystinosis and vitamin D

Sir,

Katzir et al reported a case of nephrogenic diabetes insipidus, cystinosis, and an abnormality of vitamin D metabolism.1 The idea that nephrogenic diabetes insipidus might herald cystinosis is interesting. Their analysis of the serum vitamin D metabolite concentrations on the patient, however, should not be regarded as a feature of the described association but rather part of the natural course of cystinosis. In 1983 Steinherz et al reported on the circulating vitamin D metabolites in nephropathic cystinosis.2 In this study, 10 cystinotic patients with various degrees of functional renal impairment were screened for their vitamin D metabolites. The mean (SD) concentrations of 24,25 dihydroxyvitamin D3 (24,25(OH)2D3) were reduced in those patients treated with low dose of ergocalciferol (≤25 µg) but within the normal range in the patients who received above 625 µg vitamin D2: 0.75 (0.5) and 6.5 (2.8) nmol/l respectively, while normal concentrations were 4.3 (1.3). These reduced 24,25(OH)2D3 concentrations have previously been found in children with uraemia. (Among these patients there were three cases of cystinosis.)3

Serum 1,25 dihydroxy vitamin D3 (1,25(OH)2D3) concentration depended upon the therapeutic agent used in patients. On either low or high vitamin D supplementation, 1,25(OH)2D3 was below the normal concentrations (25(20) and 9(20) compared with 108(30) pmol/l). Treatment with calcitriol and dihydrotachysterol significantly increased 1,25(OH)2D3 above normal concentrations: 190(40) and 900(513) compared with 108(30) pmol/l.

The conclusion of our report2 on cystinotic patients was in accord with that of Chesney et al3 that circulating values of 24,25(OH)2D3 were reduced in relation to the renal parenchymal damage. The low 1,25(OH)2D3 concentrations could reflect (as also stated by Katzir et al) a renal phosphate leak with impairment of synthesis of 1,25(OH)2D3 besides its correlation with renal insufficiency associated with intrarenal cystine accumulation.

References

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Atopic eczema and preterm birth

Sir,

We noted with great interest the report stating that preterm infants are at decreased risk of suffering from atopic eczema,1 and attempted to confirm this finding using data from a well known data source, the Collaborative Perinatal Project. This project was a prospective study of pregnancy and child development that from 1959 to 1966 enrolled approximately 55 000 pregnancies at 12 centres in the United States. The recruitment and follow up procedures have been described.2 3 When the subjects were 1 year old, study physicians completed a diagnostic summary form that included a code for eczema. Infant gestational age was determined from the date of the mother’s last menstrual period. Children whose birth weight was grossly incompatible with their gestational age were eliminated.

There were 44 793 children who survived the first year and for whom the presence or absence of eczema was known. Four thousand and eighty nine (9.1%) of these children were born after less than 37 completed weeks’ gestation. Eczema was slightly less common among preterm infants: 1.5% of preterms had eczema compared with