- 17 **Habib R**, Niaudet P. Comparison between pre- and post-treatment renal biopsies in children receiving cyclosporine for idiopathic nephrosis. *Clin Nephrol* 1994;**42**:141–6.
- 18 **Inoue Y**, Iijima K, Nakamura H, et al. Two-year cyclosporine treatment in children with steroid-dependent nephrotic syndrome. *Pediatr Nephrol* 1999;**13**:33–8.
- 19 **Iijima K**, Hamahira K, Tanaka R, et al. Risk factors for cyclosporine-induced tubulointerstitial lesions in children with minimal change nephrotic syndrome. *Kidney Int* 2002;**61**:1801–5.
- 20 **Hino S**, Takemura T, Okada M, et al. Follow-up study of children with nephrotic syndrome treated with a long-term moderate dose of cyclosporine. *Am J Kidney Dis* 1998;**31**:932–9.
- 21 **Kano K**, Kyo K, Yamada Y, et al. Comparison between pre-and post-treatment clinical and renal biopsies in children receiving low dose cyclosporine-A for 2 years for steroid-dependent nephrotic syndrome. *Clin Nephrol* 1999;**52**:19–24.
- 22 **Seikaly MG**, Prashner H, Nolde-Hurlbert B, et al. Long-term clinical and pathological effects of cyclosporine in children with nephrosis. *Pediatr Nephrol* 2000;**14**:214–17.
- 23 **Hamahira K**, Iijima K, Tanaka R, et al. Recovery from cyclosporine associated arteriopathy in childhood nephrotic syndrome. *Pediatr Nephrol* 2001;**16**:723–7.
- 24 **Ulinski T**, Dubourg L, Said MH, et al. Switch from cyclosporine A to mycophenolate mofetil in nephrotic children. *Pediatr Nephrol* 2005;**20**:482–5.
- 25 **Ohtomo Y**, Fujinaga S, Kaneko K, et al. High-dose mizoribine therapy for childhood-onset frequently relapsing steroid-dependent nephrotic syndrome with cyclosporin nephrotoxicity. *Pediatric Nephrol* 2005;**20**:1744–9.
- 26 **Yee GC**, Lennon TP, Gmur DJ, et al. Age-dependent cyclosporine pharmacokinetics in marrow transplant recipients. *Clin Pharmacol* 1986;**40**:438–43.
- 27 **Levy G**, Theret E, Lake J, et al. Patient management by Neoral C2 monitoring: an international consensus statement. *Transplantation* 2002;**73**:12–18.
- 28 **Fujinaga S**, Kaneko K, Yamashiro Y, et al. Preprandial C2 monitoring of cyclosporine treatment in children with nephrotic syndrome. *Pediatr Nephrol* 2005;**20**:1359–60.
- 29 **Ruf RG**, Lichtenberger A, Karle SM, et al. Patients with mutations in *NPHS2* (podocin) do not respond to standard steroid treatment of nephrotic syndrome. *J Am Soc Nephrol* 2004;**15**:722–32.

IMAGES IN PAEDIATRICS.....

doi: 10.1136/adc.2006.096768

Rash associated with Heaf test

An 8 year old boy of Somalian origin presented to general paediatric outpatients with weight loss, abdominal pain, and general malaise. His initial investigations showed an erythrocyte sedimentation rate of 78 mm/h and a C reactive protein of 100 mg/l.

While under investigation he presented acutely with right sided abdominal pain and vomiting. He had a laparotomy which showed a perforated terminal ileum requiring a right hemicolectomy with ileo transverse anastomosis.

Histology of the caecum showed diffuse ulceration with transmural fissuring associated with granulomatous inflammation, and central necrosis consistent with tuberculosis. Ziehl Nelsen staining revealed acid fast bacilli. Postoperatively, a Heaf test was placed which was strongly positive. He did not have a scar and the family were unsure if he had had a BCG. HIV serology was negative.

Four days after the Heaf test he developed discrete, papulovesicular lesions on his trunk, back, and buttocks which were not itchy and non-tender (fig 1). These continued to enlarge (fig 2).

He was commenced on quadruple antituberculosis therapy.¹ In view of the skin lesions oral steroids was added for two weeks and then weaned.

Papulonecrotic tuberculid is thought to be a hypersensitivity reaction to the mycobacterium.² It is usually associated with a strongly positive tuberculin test and underlying systemic tuberculosis. The inability to culture *M tuberculosis* or to demonstrate it microscopically from lesional biopsy specimens, together with reports of tuberculid-like eruptions after BCG vaccination, supports this concept.³

Figure 1 Parental consent was obtained for publication of this figure.

Figure 2 Parental consent was obtained for publication of this figure.

The lesions will regress when the patient receives antituberculosis therapy.

Competing interests: none

L Menon, I Davies, B O'Hare

Department of Paediatrics, Children's Hospital for Wales, Cardiff, UK

K Hutton

Department of Paediatric Surgery, Children's Hospital for Wales, Cardiff, UK

Correspondence to: Dr L Menon, Department of Child Health, Children's Hospital for Wales, Cardiff CF14 4XW, Wales, UK; leenagovind7@aol.com

References

- 1 **NICE**. Tuberculosis clinical guideline. Full guideline, second consultation. http://www.nice.org.uk/pdf/TB_fullguideline_2nd_consultation.pdf, 2006.
- 2 **Chavalittamrong B**, Chantrarakul N, Talalak P, et al. Papulonecrotic tuberculid in childhood. *Southeast Asian J Trop Med Public Health* 1980;**11**:395–8.
- 3 **Braun-Falco O**, Thomas P. The tuberculid concept from the current viewpoint. *Hautarzt* 1995;**46**:383–7.