It would be helpful if the authors could tell us what proportion of the initial cohort of children with UTI, during 1975 to 1990, underwent initial imaging after fever or follow up imaging. We have shown that in an area of very good standard for general practice only a small minority of children with UTI had been referred for radiological investigations.3 The fact that this ‘denominator’ figure is not provided casts doubt on how representative their results are. The true historical natural and prognostic value of different radiological abnormalities seen on MCU, etc., can only be determined on a large scale, prospective, hospital and community based study.

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Dr Utley comments:
I would like to thank Dr Jadresic for her interest in the two papers by Merrick et al. These were essentially the results of a hospital and community based study. However, Edinburgh hospitals with UTI, either acutely or after treatment, would have undergone imaging of their urinary tract in some form. This has been standard hospital practice and teaching throughout the period of the review. Indeed the need for investigation after a single UTI has been the formal recommendation to undergraduates, postgraduates, and general practitioners throughout. Needless to say we have no information regarding children not referred by their general practitioners and we agree with Dr Jadresic that some patients may not have been referred. Large scale prospective randomized controlled trials would be indeed required, and perhaps the impending era of national guidelines and audit will help to answer these thorny questions in the future.

With regard to the letter of Drs Robson and Kelley we do not recommend MCU to be restricted solely to females who have not achieved bladder control. Although it has not emerged as an independent variable for progression of renal disease in young boys, an MCU is clearly an important part of their work-up, particularly after febrile UTI and where many young boys present with a clinical picture of VUR, would be well served. However, we do feel the indirect voiding study to be a more sensitive, and a substantially less invasive and traumatic way of assessing the presence or absence of VUR in all children who have achieved bladder control and that this now should be seen as the initial test for reflux.

The data presented reaffirm the importance of reflux as a risk factor for progressive renal damage generally and particularly so when associated with infection.

The fact that VUR did not come out as a risk factor for progressive renal damage in boys under 1 year of age, must be due in part to the fact that this particularly vulnerable group did in general receive appropriate antibiotic prophylaxis. A further issue is that renal damage identified at presentation in these young males will represent renal dysplasia, sometimes profound, and for which evidence of progression was difficult to elucidate.

Overall it would be a pity if debate over appropriate investigation was to overshadow the importance of appropriate clinical follow up and antibiotic treatment and prophylaxis and to that extent we are in total agreement with the final paragraph of Drs Robson and Kelley’s letter.

Non-accidental fracture occurring in hospital

EDITOR,—Several recent papers have implied that fractures occurring to infants in hospital are due to natural causes, whereas those occurring to infants receiving treatment, or following hospital treatment, may be due to non-accidental injury. The inference is that fractures occurring within a place of safety cannot be non-accidental. We report a case of a child who sustained a non-accidental fracture of the left radius and ulnar while in hospital.

Case report

A 3-month-old girl was referred to our unit because of recurrent life-threatening events reported to have received mouth-to-mouth resuscitation. In one episode, bleeding from the nose and mouth was noted. Investigations in the referring hospital had failed to reveal a cause for these episodes.

All episodes involving resuscitation had begun in the presence of the mother only. She had given inconsistent histories to various carers. A 2-year-old sibling had frequent attendances at the mother's surgery with little or no illnesses, had developmental delay, and was being cared for by the maternal grandmother because she had marks possibly due to cigarette burns.

In hospital, a further life-threatening event occurred and the multichannel physiological recordings showed a pattern suggestive of suffocation. Furthermore, nursing staff noted the mother to handle the child roughly and swirl at her. Through the social services, a multi-agency planning meeting was held and a decision to institute covert video surveillance was made in order to examine the suspicion that the child's events were due to suffocation.

Under surveillance, the mother tampered with the recording equipment and tore up nursing records. After a period of physiological rough play, the mother calmly and forcibly bent the child's arm backwards at the elbow. The baby screamed with pain and the mother pressed the alarm button. She reported that staff that the baby's arm had been caught in the cot side when she lifted the baby from the cot. Radiography confirmed a transverse fracture at the proximal end of the radius and ulnar of the left arm.

The mother was convicted and the children placed in care. No further life-threatening events occurred. "The siblings' development improved and progressed normally.

Even under close supervision in hospital, non-accidental injury may occur. Consideration should still be given to the possibility of non-accidental injury when fractures occur in hospital.

As cyclospora an important cause of diarrhoea in Bangladesh?

EDITOR.—Alam and colleagues have shown quite convincingly in their classical (double-blind, randomised, placebo controlled) trial that co-trimoxazole is clinically beneficial in the treatment of Bangladeshi infants with persistent diarrhoea. 1 This is an important finding in view of the possibility of cysteinyl leukotrienes (CysLTs) in the stool not being looked for carefully. 2 3 The role of cyclospora in the pathogenesis of persistent diarrhoea in infants and children in Bangladesh has not been studied extensively. Recently, six cases of chronic diarrhoea associated with cyclospora infection were reported from Bangladesh. 4 However, all the subjects in this report were below 2 years of age. Our study subjects were below 2 years of age. Thus, cyclospora as a causal agent of persistent diarrhoea in our subjects is uncertain. Nevertheless, the possibility of cyclospora infection in a few cases cannot be ruled out. The possibility of cyclospora infection is a speculation. Further studies are needed to confirm the role of cyclospora as a causative agent associated with persistent diarrhoea in Bangladesh.

Dr Alam comments:

The clinical trial of trimethoprim-sulphamethoxazole in the treatment of persistent diarrhoea in Bangladeshi children was not intended to treat persistent diarrhoea associated with cyclospora infection. So, the presence of cyclospora in the stool was not looked for carefully. The role of cyclospora in the pathogenesis of persistent diarrhoea in infants and children in Bangladesh has not been studied extensively. Recently, six cases of chronic diarrhoea associated with cyclospora infection were reported from Bangladesh. 1 However, all the subjects in this report were below 2 years of age. Our study subjects were below 2 years of age. Thus, cyclospora as a causal agent of persistent diarrhoea in our subjects is uncertain. Nevertheless, the possibility of cyclospora infection in a few cases cannot be ruled out. The possibility of cyclospora infection is a speculation. Further studies are needed to confirm the role of cyclospora as a causative agent associated with persistent diarrhoea in Bangladesh.


Aspirin treatment and increased generation of cysteinyl leukotrienes in Kawasaki disease

EDITOR.—We read with great interest the recent article by Dr Mayatepek and Dr Lehmann in which they demonstrate that cyclosporin leukotrienes may be involved in the pathophysiology of Kawasaki disease and leukotriene synthetase inhibition or receptor antagonism may offer a new potential therapeutic approach. 3 Aspirin combined with high intravenous doses of gammaglobulin are presently the most commonly used treatment for Kawasaki disease. Considering that non-steroidal anti-inflammatory drugs, including aspirin, can augment the 5-lipoxygenase pathway by blocking cyclo-oxygenase in some pathological conditions, 2 administration of aspirin may contribute to an increase in leukotriene generation in Kawasaki disease. The authors did not refer to the generation of cysteinyl leukotrienes during aspirin treatment, but examination of this may be necessary in assessing the safety of implementing aspirin treatment in Kawasaki disease.

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Dr Mayatepek comments:

In our study on the role of cysteinyl leukotrienes in Kawasaki disease we examined patients during the acute phase before any treatment. A possible effect of non-steroidal anti-inflammatory drugs, such as aspirin, on cysteinyl leukotriene generation in Kawasaki disease was not the subject of this article. However, it was well known that doses of up to 2.5 g of aspirin had no effect on urinary leukotriene E4 (LTE4) excretion. 2 Furthermore, administration of other non-steroidal anti-inflammatory drugs, such as indomethacin, in daily doses of 50 mg also had no effect on the baseline and allergen stimulated LTE4 excretion. 2 Performing the above mentioned study, we were able to measure urinary excretion of LTE4 in three of these patients with Kawasaki disease who received gammaglobulin treatment and found no increase in leukotriene generation. It seems therefore unlikely that aspirin in the dosage used in Kawasaki disease is able to increase generation of cysteinyl leukotrienes in vivo.