Haemophilus parainfluenzae

EDITOR.—We would like to describe the first report of *Haemophilus parainfluenzae* urinary tract infection occurring in the paediatric population, a case which highlights the importance of looking for more fastidious organisms in selected patients.

**Case report**

A 2 year old boy was admitted with dysuria, intermittent vomiting, and abdominal pain. Ten weeks earlier he had undergone a distal hypospadias repair which was complicated postoperatively by mild penile inflammation; a wound swab grew low numbers of *Pseudomonas aeruginosa* (transurethral) and *S aureus* (transcutaneous) and was not treated with antibiotics. Two weeks later he developed persistent dysuria. On examination the hypospadias wound was clean with no evidence of cellulitis. He had received antibiotic therapy before admission and was started on cefuroxime.

Microscopic examination of a clean catch urine sample showed neither white blood cells nor red cells, but there were a few white cell casts and many small Gomori-negative bacilli. No growth was seen on CLED agar, however, in view of the microscopy results, a sample of urine was plated out on to chocolate and blood agar. After incubation the chocolate plate revealed a heavy pure growth (>10⁵/ml) of bacteria. Subsequently, identified as *H parainfluenzae*, based upon growth requirement for factor V (but not X) and a positive ALA (6-aminoenylucin acid) disk test (MAST Diagnostics) and which was sensitive to cefuroxime. A blood culture taken on admission showed no growth. He has made a complete recovery clinically but is to be reviewed on an outpatient basis.

Although *H parainfluenzae* has recently been associated with IgA nephropathy, infections within the urinary tract itself are rare. The only study that has attempted to determine the prevalence of *Haemophilus* spp within the urinary tract has shown that, while urethral colonisation is possible, infection is probably very uncommon within the general paediatric population.² A review of the literature revealed only five reports of this organism being isolated in significant numbers from urine,³ all in the adult population. Four of the five patients had chronic urinary tract problems and, in this case, two had had instrumentation to the urinary tract (transurethral resection/ lithotomy) in the weeks before the onset of infection. The prevalence of infection within this apparent at-risk group is unknown, but given the lack of growth on conventional isolation media and the usual antibiotic sensitivity of this organism, the number of infections is likely to be underestimated. The first reported urinary isolate⁴ was able to grow rapidly in spiked samples of urine in contrast to other *H parainfluenzae* isolates from the upper respiratory tract, and certainly our isolate survived in high numbers in urine stored at 4°C for 2 days, so that there may be urine adapted strains.

For selected patients, those with chronic urinary tract disease and recent instrumentation in particular, the use of more nutritious

**Skull fractures in infancy**

EDITOR.—Skull fractures in infants are frequent findings in victims of non-accidental injury,¹ and may also occur during childbirth. There are reports in textbooks that skull fractures may remain radiologically detectable for a period up to six months.² In a leading article in 1992 in this journal radiological dating of fractures was discussed in detail,³ but it did not mention the healing of skull fractures. A skull fracture due to abuse in a child under 2 years is associated with very high mortality and morbidity.⁴ Paediatricians may need to know whether a skull fracture in a 6 week old child was sustained at birth or more recently; indeed patients may return for a fracture radiologically similar to this one. Therefore it will be of great benefit to general paediatricians and radiologists in district hospitals if the following questions could be answered:

1. How long do skull fractures take to heal radiologically?
2. Does the healing process of skull bones differ from healing of long bones? If so how could these fractures be dated?
3. When is a skull fracture not a fracture?

**Central nervous system tumours lack national studies**

EDITOR.—The Childhood Cancer Research Group demonstrated that survival from acute non-lymphocytic leukaemia was improved for those children entered in national studies.¹ The same group showed that survival from acute lymphoblastic leukaemia in 1989.² In a population based study in the South West region from 1976–85, 245 children were identified with leukaemia and 54% of these were entered in national studies. A large percentage would have then benefited from the survival advantage of being entered. This contrasts sharply with the situation for children with CNS tumours where less than 25% of Childrens National Tumours (CNS) tumours in the same period when of 164 children identified only 5% were entered on trials. A major reason for failure to enter these children into studies for CNS tumours was the lack of available national protocols which were eligible. This situation still exists today. All children with acute leukaemia are eligible for the different national studies.