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JEAN-PIERRE GUIGNARD
Service de Pédiatrie, CHUV, 1011 Lausanne, Switzerland

ANTONIO TORRADO
Hospital Pediatrico, CHC-CELAS, Coimbra, Portugal

Dr Moncrieff comments:

I accept that it is possible that the 2 babies with mixed growths might have had infection, and am glad that Dr Guignard agrees that infection must always be confirmed by a suprapubic aspiration. We both think that looking for asymptomatic bacteriuria in healthy preterm babies, even high-risk ones, is not a profitable occupation.

Neutrophil function in infection-prone children

Sir,

The problem of obtaining reasonable controls when working with children is a perennial one. When performing esoteric immunological investigations for which the normal values are unknown, and which are almost certainly age-related, controls are of paramount importance. Recently you published an article describing neutrophil function tests on 24 children with recurrent bacterial infections, mainly those of the upper respiratory tract.[1] The average age of these children was not given, but the mean value of the ages listed was 4·5 years.

The control group consisted of 20 children, mean age 9 years, 8 with allergy to birch-pollen (asymptomatic at the time of sampling) and 12 admitted for operation for non-infectious causes.

It is a pity to nullify what may well be perfectly valid results by the use of so few controls so poorly matched for age.

Reference

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DAVID ISAACS
Division of Immunological Medicine, Clinical Research Centre, Watford Road, Harrow, Middx HA1 3UJ

Dr Håkansson and co-workers comment:

We agree that the number of controls was small and not completely matched for age. The problem associated with the collection of a control group of children is obvious but should be overcome if necessary. However, because we had no indications of any age-dependent variations in any of the variables presented, and because our control groups of children were indistinguishable from adult controls, we did not consider this to be of paramount importance for the conclusions in our paper. Subsequent studies have given further support to our conclusions and, if anything, such studies have shown a tendency towards somewhat higher values in children than in adults for one variable (the phagocytic rate of IgG-coated particle). We are therefore convinced that the results presented in our paper are valid.

Superficial skin necrosis in babies prepared for umbilical arterial catheterisation

Sir,

Mann's report[1] of gluteal skin necrosis after umbilical arterial catheterisation incriminates the catheter, but we have some evidence that the catheter may not be the culprit. Between July 1976 and May 1977 we saw 8 cases in whom findings were almost identical with the 3 he described. All the babies were of very low birthweights (mean 1010 g ± 205 SD) and gestation (mean 28 weeks ± 1·7 SD). Discoloration of the buttocks and lower back was noticed within the first 4 hours and the catheter was removed immediately from 6 babies. In the case of a baby who died, necropsy showed that the lesion was confined to the skin with haemorrhage in the dermis and superficial subcutaneous tissue. The vessels showed no evidence of thromboembolism and the underlying muscle and deep fat appeared normal. It was decided that the catheter was essential for clinical management of 2 babies and the damaged skin subsequently healed. After this 'epidemic' we carried out a postal survey of 16 neonatal intensive care nurseries in the UK. Nine centres reported a total of 14 similar cases in babies of low birthweights. Catheterisation of the umbilical artery failed in a baby who weighed 800 g, but skin necrosis over the buttocks and lower back had still occurred.

To study the sequence of events we introduced a policy of inspecting the back and buttocks *before* catheterisation to identify skin damage from other causes—such as breech delivery. The area was re-examined immediately after the procedure and it soon became apparent that many babies had been lying in a pool of chlorhexidine (0·5% in spirit) and povidone-iodine used to clean the umbilicus. We suspected that these solutions might be causing skin damage and so we used them sparingly and changed the sheet immediately after catheterisation.

Since January 1978 280 babies have been prepared for umbilical arterial catheterisation. In 14 (5%) some degree of skin damage was present before the procedure. Catheterisation was successful in 249 (89%) babies. We have used end-hole Argyle (ALOE Medical Co. St Louis,