Successful suprapubic aspiration of urine

Sir,

O’Callaghan and McDougall recommend the use of ultrasound scanning of the bladder in infants for successful suprapubic aspiration of urine. Collection of urine by suprapubic aspiration for accurate diagnosis of urinary tract infections in the newborn infant is not in doubt and is generally accepted.

The results of their study show only a 36% success rate of bladder aspirations without the help of ultrasound scanning. In the same group they also failed to obtain urine in seven infants despite three repeated attempts. There was, however, no mention made as to when these repeated attempts were made.

I have been quite successful in collecting urine from infants by suprapubic aspiration by following simple and useful guidelines. I do not attempt suprapubic aspiration until at least 30 minutes after a feed is given.

In these babies who need ‘full sepsis’ screening, urine is collected by suprapubic aspiration at the beginning of the investigation before venepuncture and lumbar puncture. I also ask a nurse to keep a sterile container ready to collect urine if the infant voids urine spontaneously during the preparation. An appreciable number of infants seem to void urine per urethra just at the time when the skin over the bladder is cleaned! In the rare event of a failed attempt I repeat the procedure one hour later. Complications such as bowel perforation and secondary infection after repeated attempts, as mentioned by the authors, have not been experienced by us.

I am surprised at the optimism of O’Callaghan and McDougall for the increasing availability of ultrasound machines in neonatal wards, paediatric wards, and even in the community. This may well be true for Melbourne and for teaching hospitals but this has not been my experience in district hospitals.

Portable ultrasound machines are still a luxury in many paediatric departments in district hospitals even in the United Kingdom. I have difficulties in getting an adequate supply of neonatal incubators or paediatric infusion pumps among many other essential items of basic equipment required for maintaining an effective paediatric service.

With continuing cuts in the National Health Service budget it is most unlikely that portable scanners would be available in neonatal or paediatric wards in district hospitals in the distant future. In my opinion availability of scanners in the community would remain a dream for some time to come.

References


C S Nanayakkara
Grantham and Kesteven General Hospital,
Manthorpe Road,
Grantham,
Lincolnshire NG31 8DG

Correspondence

Cord blood IgE and month of birth

Sir,

We read with interest the study on cord blood IgE in relation to month of birth by Dr Kimpen and colleagues. Using stringent criteria for detecting maternal fetal blood contamination (IgA >32.3 μg/ml) the authors were able to achieve a low contamination rate of 2-9% compared with the 3-9% that we found in a recent study that we undertook of 153 samples, collecting cord blood by venepuncture and using a higher level of IgA cut off (IgA >100 μg/ml). Was their cord blood sampled by venepuncture or ‘squeezed out’ from the cut umbilicus? If ‘squeezed out’ cord serum gives a contamination rate as low as that described, then we should not be using a more expensive and time consuming method of sampling by venepuncture as advocated by authorities in this field.

We are also interested in the IgE values of Kimpen’s 157 samples showing evidence of ‘contamination’ indicated by IgA concentrations >3 SD above the mean. In our recent study using an IgA >100 μg/ml as cut off, we found six of the 153 samples (3-9%) showing evidence of contamination. Among these only three had IgE >1 IU/ml, the remaining three had IgE values of <0-12 IU/ml. Thus IgA may not be a truly specific marker for maternal fetal blood contamination.

Finally, we wonder why the incidence of raised IgE in Belgium in 1985 was only 50% of that of Swedish babies in 1979. Might it represent a secular trend of change in allergy predisposition, ethnic or environmental differences, or methodological changes in screening techniques for IgE at extremely low concentrations that has taken place during this period of time.

References


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