Hydrops fetalis due to abnormal lymphatics

Sir,

Windebank et al reported a case of hydrops fetalis due to abnormal lymphatics.1 The baby, a girl, died at the age of 66 days. We are not aware of any other reports of this condition. Her parents have now had a second female child, with features similar to the first, born 16 months later. This baby died age 1 hour. We write to report her clinical history.

The parents are members of a travelling family. The mother's previous obstetric history was one pregnancy lasting 42 weeks and delivering a well male infant, weighing 3500 g, a miscarriage at 12 weeks, and the girl reported by Windebank et al. In the current pregnancy she first attended the antenatal clinic at 18 weeks, and serial ultrasound scans from 20 weeks showed fetal ascites and massive and increasing oedema. She went into spontaneous labour at 32 weeks. The membrane rupture delivery interval was 2 hours and 45 minutes, and she was delivered vaginally of a hydropic female infant whose weight was 3010 g, length 41 cm. As with the previous pregnancy the placenta was retained, requiring manual removal under general anaesthetic. It weighed 725 g and was pale and oedematous.

The baby's heart rate was 60/minute, but respirations were absent. She was intubated and ventilated. Intensive treatment, including external cardiac massage, failed to improve her condition, and she died at age 1 hour. Blood was obtained from an umbilical venous line. The baby's blood group was A positive, as was her mother's, haemoglobin concentration was 114 g/l and packed cell volume 42.0%; concentration of serum albumin was 18 g/l, serum sodium 130 mmol/l, serum urea 2.3 mmol/l, and serum calcium 2.31 mmol/l.

Postmortem examination showed massive ascites and large serous effusions in both pleural cavities with anatomically normal, but hypoplastic, lungs. Apart from oedema the urinary system appeared normal, as did the heart, the great vessels, the liver, and the spleen. Probably this baby had the same condition as her sister. It is of note that with each baby there was a retained placenta. This baby appears to have been the more severely affected.

Windebank et al, thought the parents not related.1 Questioning of the family at the time of the birth of this child, however, established that the baby's paternal grandmother and maternal grandfather are first cousins. This was probably overlooked by Windebank et al, and this cause of hydrops fetalis may represent a previously unreported autosomal recessive condition. Perhaps it should be looked for in travelling families.

Categories of neonatal care and nurse staffing

Sir,

The English National Board (ENB) for Nursing, Midwifery and Health Visiting recently circulated guidelines for staffing of neonatal units.1 Their document recommends staffing levels in relation to three clinical categories of newborn care over and above normal care—namely, special care, high dependency care, and intensive care. The document cites the 1984 British Paediatrics Association/British Association for Perinatal Paediatrics (BPA/BAPP) statement2 on this subject and indeed includes their categories as an appendix. Unfortunately, there has been a major inaccuracy in transcription to which we feel attention must be drawn before further confusion arises. The BPA/BAPP document describes eight groups of infants deemed to be in need of intensive care with appropriate nurse staffing. The ENB document, on the other hand, restricts intensive care to just the first two of these groups: infants receiving respiratory support and those receiving total parenteral nutrition. The remaining six groups are described as belonging to a new category of high dependency care with a reduced level of nurse staffing. This is not only likely to cause confusion but is, in our view, ill advised as many of the infants in groups three to eight of the BPA/BAPP document require as much or more nursing attention as those in groups one and two. For example, they include babies with unstable cardiopulmonary disease, babies in the first 24 hours after major surgery, those of less than 30 weeks' gestation during the first two days, babies who are convulsing, those being transported between units, and those undergoing major medical interventions such as peritoneal dialysis or exchange transfusion. We very much hope the ENB will reconsider their document and hopefully bring it into line with the paediatric recommendation. At least if they do not do so it is important that everyone should be aware of the transcription error that has been made.

References

1 English National Board for Nursing, Midwifery and Health Visiting. Guidelines to staffing of neonatal units. London:

References


P Ehrhardt, D Byfield, and M L Smith Paediatric Unit, St Luke's Hospital, Bradford, West Yorkshire BD5 0NA

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.1 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 those 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
2 C S Nanayakkara Grantham and Kesteven General Hospital, Manthorpe Road, Grantham, Lincolnshire NG31 8DG

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.1

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).2 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.3

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 1979.4 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.1 2 4

References
4 Croner S, Kjeliman NM, Eriksson B, Roth A. IgE screening in...