Correspondence

Clinical outcome of fetal uropathy

Sir,

Madarikan *et al*, in their article on clinical outcome of fetal uropathy, discussed the antenatal management of fetal uropathy.¹ However, I think the following points deserve mention.

Any fetus found to have a renal dysplasia or an obstructive uropathy should, initially, have a full anomaly ultrasound scan performed to exclude other structural abnormalities. An accurate ultrasound scan can normally be done even in the presence of oligohydramnios by an experienced ultrasonographer. A fetal karyotype should also be considered because of the association between renal tract abnormalities and chromosomal defects.² The parents should then be counselled with this information and its significance. If they elect to continue the pregnancy an attempt is made to assess the functional potential of the fetal renal tract by three methods: amniotic fluid volume, kidney size and sonographic appearances, and by the results of biochemical analysis of fetal urine after ultrasound guided needle aspiration. This latter technique is particularly helpful in identifying those fetuses with an obstructive uropathy who could benefit from vesicoamniotic shunting. Appleman and Golbus have shown that a fetal urine osmolality greater than 210 mmol/kg and a urinary sodium and potassium greater than 100 mmol/l and 90 mmol/l respectively, are accurate predictors of renal function.³ If the kidneys are non-dysplastic, liquor volume is reduced and the obstructive uropathy is infravesical, then vesicoamniotic shunting is generally undertaken. This has been shown to improve the perinatal survival of fetuses with posterior urethral valves, prune-belly syndrome, and urethral atresia. Whether it reduces long term renal and pulmonary morbidity is, however, unknown.

Although no one doubts the value of ultrasound screening, controversies do remain regarding the antenatal management of obstructive uropathy. Further information comparing conservative and surgical treatment of fetal obstructive uropathy is required, not only in relation to perinatal survival, but also long term morbidity and mortality.

References

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- 3 Appleman Z, Golbus M. The management of fetal urinary tract obstruction. *Clin Obstet Gynecol* 1986;29:482–9.

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Brittle or battered?

Sir,

Most paediatricians know very little about osteogenesis imperfecta. From time to time they are called upon to give 'expert' evidence in a case where a child has unexplained fractures. In most cases the differential diagnosis is obvious, but in others not quite so straightforward as Dr H Carty would have us believe.¹

My concern is that paediatricians faced with the task of providing expert evidence will refer to Dr Carty's authoritative annotation and in consequence may mislead the court. It is in the mild case of osteogenesis imperfecta in which the sclerae are normal colour and the teeth normal that most diagnostic difficulty arises. Paediatricians faced with the onerous task of providing an explanation for fractures should bear in mind the following points²:

- No family history is necessary for the diagnosis of brittle bones.
- Wormian bones are **not** a *sine qua non* for the diagnosis of osteogenesis imperfecta.
- Metaphyseal fractures are a feature of both abuse and brittle bones.
- Normal bone texture and a normal radiographic appearance of the rest of the skeleton at the time of the first fracture do not exclude brittle bones.
- The fact that no recurrent fractures occur while the child is in care does **not** exclude the diagnosis of osteogenesis imperfecta. The interval between fractures may be many months or even years.

I believe that in very rare instances at the time of court proceedings it may not be possible to differentiate accurately brittle bones from non-accidental injury on the medical evidence alone.

References

- 1 Carty H. Brittle or battered. *Arch Dis Child* 1988;63:350–2.
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Dr Carty comments:

The diagnosis of mild osteogenesis imperfecta can be difficult but poses a clinical problem only in older children who are mobile and sustain frequent fractures after minor injury. Medico-legal problems arise, not with these children, but with children, usually under the age of 6 months, who have suffered non-accidental injury and who, it is claimed, have mild osteogenesis imperfecta despite the