

We do not know what proportion of our patients were scanned in the third trimester, but during 1985–7 the mean number of ultrasound examinations per booked pregnancy was 2.7. In contrast to Gunn *et al*, six out of 15 cases of definite pathology detected to date were first suspected between 15 and 19 weeks' gestation. We agree with them, however, that in addition to a routine scan at about 18 weeks, every fetus should ideally have a further ultrasound examination after 28 weeks' gestation.

#### References

- Gunn TR, Mora JD, Pease P. Outcome after antenatal diagnosis of upper urinary tract dilatation by ultrasonography. *Arch Dis Child* 1988;63:1240–3.
- Scott JES, Renwick M. Antenatal diagnosis of congenital abnormalities in the urinary tract. Results from the Northern Region Fetal Abnormality Survey. *Br J Urol* 1988;62:295–300.

A J COTTRELL, C CAIRNS, and  
J W FOULDS  
General Hospital,  
Bishop Auckland,  
County Durham DL14 6AD

## Mother's choice to provide breast milk and developmental outcome

Sir,

The recent paper by Morley *et al* discussed some of the dangers of interpreting the higher Bayley scores at 18 months that were achieved by very low birthweight babies whose mothers expressed an intention to breast feed compared with those whose mothers did not.<sup>1</sup>

In a detailed analysis of breast feeding and child development in the 1970 National Cohort (CHES), adjusting for all factors predictive of initially deciding to breast feed, strong relationships were found linking breast feeding decision to above average scores in a picture vocabulary test and a human figure drawing test at 5 years of age, and the Edinburgh Reading Test at 10 in both primiparae and multiparae. Furthermore higher average British Ability Scale scores characterised 10 year old children who were breast fed as infants.<sup>2</sup>

Language development and vocabulary and drawing skills at 5 years have now been examined for infants with birth weights of less than or more than 2537 g whose mothers breast fed their infant wholly or partially during the first seven days postpartum. In a multiple logistic regression analysis on both birthweight groups, the odds ratio of above average skills in the initially breast fed group were computed, having adjusted for the same factors predictive of breast feeding used by Morley *et al*: educational qualification of mother, mother's age and parity, marital status, social class, method of delivery, gestational age, birth weight, and sex of infant. No adjustment could be made for the number of days of ventilation as these data were not available. The results (table) indicate similar modest associations between initial breast feeding and intellectual outcome for both birthweight groups with

Table Adjusted odds of higher than average scores on three developmental tests at 5 years of age of children initially breast fed during the first week of life (1970 National Cohort)

	Birth weight (g)	
	<2537	≥2537
<b>Copying Designs Test</b>		
Adjusted odds ratio	1.09	1.13
95% Confidence intervals	0.89 to 1.34	1.08 to 1.18
p Value	0.41	<0.0001
Sample size	441	8146
<b>Human Figure Drawing Test</b>		
Adjusted odds ratio	1.09	1.08
95% Confidence intervals	0.88 to 1.35	1.03 to 1.13
p Value	0.42	0.0012
Sample size	430	8011
<b>English Picture Vocabulary Test</b>		
Adjusted odds ratio	1.06	1.11
95% Confidence intervals	0.86 to 1.32	1.06 to 1.17
p Value	0.57	<0.0001
Sample size	416	7712

small sizes and large standard errors probably responsible for the lack of significance in the low birthweight group.

These results might seem to indicate support for a breast feeding effect. However, in further CHES studies of antenatal class attendance, smoking behaviour, and immunisation, similar associations with educational and intellectual outcomes can be linked to 'positive' health behaviour in the mother.<sup>3</sup> Caution is therefore demanded in interpreting the present results.

As Morley *et al* recognise, mothers of preterm babies prepared to breast feed are likely to comprise an especially motivated group. Their family characteristics are likely to be associated with above average educational stimulation of their children. Furthermore, one should be wary of linking 'intentions to breast feed' with substantial breast milk consumption as these may not be matched by 'actual breast feeding'. In the CHES study there was a high preponderance of very short term breast feeders.<sup>4</sup>

Conversely, intentions to engage in healthy behaviour are probably indicative of a wide range of motivations likely to be associated with advantageous parenting styles and favourable outcomes in the child. Only when breast feeding in the population is unrelated to socioeconomic advantage, mother's background, attitudes or personality, or other forms of health behaviour, can its long term impact on development and intellect be properly determined.

#### References

- Morley R, Cole TJ, Powell R, Lucas A. Mother's choice to provide breast milk and developmental outcome. *Arch Dis Child* 1988;63:1382–5.
- Taylor B, Wadsworth J. Breast-feeding and child development at 5-years. *Dev Med Child Neurol* 1984;26:73–80.
- Pollock JI. Health behaviour of women and long-term associa-

## 764 Correspondence

tions in their children. In: Albermann, ed. *The needs of parents and their children*. Health Promotion Research Trust (in press).  
<sup>4</sup> Chamberlain R, Chamberlain G, Howlett B, Claireaux A. *British births 1970. Vol 1: The first week of life*. London: Heinemann, 1975.

J I POLLOCK  
 Department of Child Health,  
 Royal Hospital for Sick Children,  
 St Michael's Hill,  
 Bristol BS2 8BJ

## Brittle or battered?

Sir,

My attention has been drawn to correspondence about this subject. There is reference to an article in which I reported study of a series of children with osteogenesis imperfecta with special reference to the occurrence of metaphyseal fractures.<sup>1</sup>

In his letter Dr Blumenthal states that 'metaphyseal fractures are a feature of both abuse and brittle bones'.<sup>2</sup> This is true but needs qualification. In non-accidental injury the bones appear grossly normal and the metaphyseal fractures are often numerous. In osteogenesis imperfecta fractures of this type are infrequent and rarely number more than one or two. They were only seen in my series where there was *gross abnormality of the skeleton* and the diagnosis of the presence of a systemic bone disease was apparent at a glance.

To quote my last sentence, 'Confusion with non-accidental injury did not occur'.

## References

- <sup>1</sup> Astley R. Metaphyseal fractures in osteogenesis imperfecta. *Br J Radiol* 1979;**52**:441-3.
- <sup>2</sup> Blumenthal I. Brittle or battered. *Arch Dis Child* 1989;**64**:176.

R ASTLEY  
 The Children's Hospital,  
 Birmingham B16 8ET

## Somatostatin analogue in short term management of hyperinsulinism

Sir,

We are interested by the report of Kirk *et al* of the use of somatostatin analogue for the short term management of hyperinsulinism in which a fall in glucose requirement of 4-6 mg/kg/minute was seen.<sup>1</sup> We have previously reported similar success, in the short term control of hyperinsulinism in an infant with nesidoblastosis, using growth hormone twice daily by subcutaneous injection.<sup>2</sup> A fall in glucose requirement of 5.5 mg/kg/minute was seen. The effect of growth hormone in the treatment of hypoglycaemia is reported elsewhere.<sup>3,4</sup>

At the time of our report further studies of this use of growth hormone were precluded by the withdrawal of pituitary growth hormone after reports of Creutzfeldt-Jakob disease. Now that a growth hormone produced by recombinant DNA technology is available, however, the choice of growth hormone over a somatostatin analogue has advantages.

Somatostatin has a very broad range of endocrine activity,<sup>1</sup> with unwanted effects upon other endocrine axes that do not appear to be produced by growth hormone. Furthermore, on simply practical grounds growth hormone, unlike somatostatin, is available in most regional centres.

In the infant with hyperinsulinism, when it is necessary to temporise before surgery, we believe that growth hormone may be preferable, and its use certainly merits further study.

## References

- <sup>1</sup> Kirk JMW, Di Silvio L, Hindmarsh PC, Brook CGD. Somatostatin analogue in short term management of hyperinsulinism. *Arch Dis Child* 1988;**63**:1493-4.
- <sup>2</sup> Hocking MD, Newell SJ, Rayner PHW. Use of human growth hormone in treatment of nesidoblastosis in a neonate. *Arch Dis Child* 1986;**61**:706-7.
- <sup>3</sup> Soyka LF, Molliver M, Crawford JD. Idiopathic hypoglycaemia of infancy, treatment with human growth hormone. *Lancet* 1964;**i**:1016.
- <sup>4</sup> Ernesti M, Mitchell ML, Raben MS, Gilboa Y. Control of hypoglycaemia with diazoxide and human growth hormone. *Lancet* 1965;**i**:628-30.

S J NEWELL,\* M D HOCKING,† and  
 P H W RAYNER\*  
 \*University of Birmingham,  
 Institute of Child Health,  
 Francis Road,  
 Birmingham B16 8ET  
 †Children's Hospital,  
 Ladywood Middleway,  
 Birmingham B16 8ET

## Disialotransferrin developmental deficiency syndrome and olivopontocerebellar atrophy

Sir,

I read with great interest the paper of Kristiansson *et al* about disialotransferrin developmental deficiency syndrome.<sup>1</sup> I would like to draw attention to the remarkable similarity between this syndrome and a condition recently reported in two siblings as olivopontocerebellar atrophy with neonatal onset.<sup>2</sup> Common features included failure to thrive, hypotonia, developmental delay, joint restrictions, pericardial effusions, mild non-progressive liver disease, retinal dystrophy, and cerebellar hypoplasia.

Moreover there was thyroxine binding globulin deficiency in the patients reported by Harding *et al*,<sup>2</sup> and although serum concentrations of thyroxine binding