

Fetal and Neonatal this issue

Very small Australians . . .

The outcome of extremely low birthweight survivors born during 1979 and 1980 has previously been reported by the Victorian Infant Collaborative Study Group at the ages of 2, 5, and 8 years. In this issue (page F159) the neurosensory outcome of 90% of the 88 survivors to 14 years is reported. Only ten per cent have cerebral palsy but including visual, hearing, and cognitive impairments 14% were judged to be severely and 15% moderately disabled. Mild disability (defined as ambulatory cerebral palsy with minimal limitation of movement or an IQ between 1 and 2 standard deviations below the mean for normal birthweight controls) was present in 25%, and 46% were normal. The moderate and severe disabilities were all identified at earlier ages, and it is reassuring in this respect that only one of the 9 children who could not be assessed at 14 years had a severe or moderate disability when assessed at age 8. Information from another era of neonatal intensive care, of course, but important longitudinal information on this cohort. On the whole disability "tracked" reliably during childhood, but interestingly this cohort showed no significant increment in recognisable cognitive impairments between the age of 2 and 5 years, and 4 children classified as having mild/moderate cerebral palsy at 2 years were subsequently classified as having no motor deficit.

...and small active Danes

The Australian study attempted to define the biological cost of preterm birth, on page F165 there is an attempt to quantify the effect of low birthweight on lifestyle of young adult survivors in Denmark. Using a telephone survey, Dinesen and Griesen have studied objective and subjective measures of quality of life (QOL) in cohorts of very low birthweight (VLBW), low birthweight, and normal birthweight infants born in 1981–82 and compared them with results from similar cohorts recruited 8 years earlier and assessed with the same QOL measurement tool. "Objective" QOL scores were higher in term controls in the latter period compared with the former, which considering the questionnaire scored for travel, sport, and healthy Scandinavian activities in preference to sedentary pursuits suggests Danish young adults are not becoming couch potatoes. The objective QOL scores were also improved between the two time periods in those VLBW survivors who were free from disability or chronic ill health, though to a lesser degree. Although the VLBW survivors had slightly lower "objective" QOL scores than term controls, their measured "subjective" QOLs were the same. The authors comment that "the ability to accept fate is a valuable asset of human nature".

Fetal cerebral sinistrality

Morphological asymmetry of the brain is well described in adults and newborns, and now a careful prenatal ultrasound study (page F194) shows that this asymmetry is

already established at 20–22 weeks gestation. The left side of the brain is larger. Testosterone may be part of the story, but there is no indication that the sensitive, intuitive right brain is any larger in females. The asymmetry seems to apply equally to fetuses of both sexes.

Cerebral cystic lesions are not all sinister

The March 2001 issue of Archives¹ included a worrying article about the lack of reproducibility of cerebral ultrasound interpretation as it is performed—usually by paediatric trainees—in neonatal practice in the UK. The major concern about erroneous interpretation is the potential for an inaccurate prognosis being transmitted to parents, leading to unnecessary distress or even long term disadvantage for the child whose potential is underestimated. The paper by Pal and colleagues on page F187 is therefore important in clarifying the pathology, natural history, and distribution of thin walled frontal horn cysts, which are different from the cysts of periventricular leucomalacia and have a much more benign prognosis.

1 Reynolds PR, Dale RC, Cowan FM. Neonatal cranial ultrasound interpretation: a clinical audit. *Arch Dis Child Fetal Neonatal Ed* 2001;84:F92–5.

Boinggg!

Another death knell, if one was needed, for the role of clinical examination in the evaluation of the patent ductus arteriosus in the preterm neonate. Beware the casual remark on a morning ward round that a duct "sounds as if it has reopened". The murmur that develops following ductal closure is much more likely to be due to pulmonary branch stenosis (page F197). It is unlikely to respond to a further course of indomethacin and will go away within 3 months.

Another inflammatory idea

In theories of the aetiology of cerebral palsy, inflammation is the new hypoxia. A further piece of the jigsaw is supplied this month by Impey *et al* (page F170). In a large study designed to assess the benefit of admission cardiotocography in term pregnancy, there was a significant association between pre-eclampsia and maternal fever. There was also an association between pre-eclampsia at term, and moderate or severe neonatal encephalopathy, though it is too early to know whether this will translate into a relationship with subsequent cerebral palsy. The authors postulate an inflammatory component to the pre-eclamptic process which may have adverse neurological sequelae for the fetus. Now it remains to explain why pre-eclampsia seems to be relatively protective against cerebral palsy in some studies of preterm infants! Perhaps even preterms born to mothers with pre-eclampsia are less inflamed than those born to mothers in preterm labour.

PETER HOPE
Neonatal Editor



Arch Dis Child Fetal Neonatal Ed 2001 85: F0
doi: 10.1136/fn.85.3.F0

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