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Prognosis for babies born with fused eyelids

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SUMMARY The overall mortality for babies referred to our unit with fused eyelids was 68.7%; but when severe skin bruising was present only one of 18 babies survived (5.6%). This compares with a survival rate of 75% for those not bruised at or soon after birth. Skin bruising invariably indicates a very poor prognosis in babies born with fused eyelids.

The idea of a 'cut off' weight below which intensive care could be withheld for babies born at the extremes of viability has been suggested.¹ Although mortality increases with decreasing birthweight, survival rates of 40% have been reported for babies born between 501 and 750 g.² Birthweight cannot, therefore, be used as the sole criterion when deciding whether to initiate or withdraw intensive care. Although each unit develops its own criteria in the light of previous experience, paediatricians often find the outcome for babies treated in other units helpful when counselling parents. For this reason we report our findings for a group of babies born with fused eyelids (gestation 24 to 27 weeks).

Patients

Between June 1981 and November 1983, 319 babies were admitted to our neonatal intensive care unit for respiratory support. The neonatal unit in our hospital at this time was atypical in that there was no maternity unit on site and all babies requiring ventilatory support were transferred. Retrospective analysis of case notes showed that 32 (10%) of these babies had fused eyelids, and in all but two this was bilateral. Their birthweights ranged from 500 to 970 g (mean 755 g) with estimated gestational ages of 24 to 27 weeks (calculated from the mother's menstrual dates). Only 10 of these 32 (31%) babies survived to be discharged from the unit. Of the 19

with birthweights equal to or less than 800 g, four survived (21.5%) but six of the 14 (43%) with birthweights greater than 800 g survived. Bruising, noticeable within the first hours of life (usually affecting both legs, the lower abdomen, or the head), was present in 18 of 30 (no record was made in two cases). Only 1 (5.6%) of these 18 survived compared with nine of 12 (75%) without bruising. There were no survivors in 11 newborns with bruising, fused eyelids, and a birthweight under 800 g. The Table summarises these findings. A full necropsy was available in only 14 of the 32 babies with fused eyelids. Twelve of these 14 were bruised at birth and seven had an associated intraventricular haemorrhage (59%). Twelve babies died within 24 hours (mean birthweight 765 g) and eight died within the next seven days (mean birthweight 690 g). Of the two remaining babies, one died aged 39 days with gross hydrocephalus secondary to a large intraventricular haemorrhage and the other died at 3 months from severe bronchopulmonary dysplasia. Two of the 10 survivors subsequently died unexpectedly as cot deaths when aged 5 and 15 months. Follow up examinations have been completed for all the others, and while none has a profound handicap, as the oldest is still only 23

Table Outcome for babies born with fused eyelids (FE) in relation to birthweight and presence of bruising

No	Birthweight (g)	Physical characteristics	Survival (%)
19	≤800	FE only	4 (21.5)
13	>800	FE only	6 (46.15)
11	≤800	FE + bruised	0 (0)
6	≤800	FE + not bruised	4 (66.6)
7	>800	FE + bruised	1 (14)
6	>800	FE + not bruised	5 (83.3)
18		FE + bruised	1 (5.6)
12		FE + not bruised	9 (75)

months it is too early to predict their ultimate outcome. So far two children, one of whom required a shunt for post-haemorrhagic hydrocephalus, show signs of moderate developmental delay.

Discussion

As intensive care places considerable emotional strain on both parents and nursing staff, it is perhaps wise to question whether those babies with a particularly poor prognosis should be treated. Separation from the mother in these circumstances, especially if referral to a regional neonatal unit is necessary, is undesirable and may seriously interfere with grieving.

Over the past six months many such parents have written asking for either a photograph (easily forgotten when caring for critically ill babies) or at least some memento of the birth (for example a name band). After discussion with the parents, withholding long term intensive care may in certain circumstances be the most appropriate course of action.

We have found that bruising is almost always a fatal sign in these babies. Only one of 18 (5.6%) bruised babies (mean birthweight 755 g) survived compared with 9 of 12 without bruising (mean birthweight 755 g). This may be because bruising is often associated with an intraventricular haemor-

rhage. This was true for 59% of our babies who had a necropsy, and similar findings have been reported by others.³ The aetiology of bruising is unclear; it may be due to a degree of birth asphyxia or trauma, or may simply be a sign of the extreme fragility of blood vessels. Delivery by caesarean section has been advocated⁴ for very preterm infants in order to prevent complications, but 11 of our 18 bruised babies were delivered in this way.

As a result of these findings, although we resuscitate all babies born in our unit, we would no longer routinely undertake long term respiratory support in infants with skin bruising and fused eyelids.

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Campylobacter enteritis and bloody stools in the neonate

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SUMMARY Within 72 hours of birth three babies had loose stools containing fresh blood, mucus, and *Campylobacter jejuni/coli*. *Campylobacter* enteritis should be considered in newborn babies passing blood per rectum.

Campylobacter jejuni and *C coli* are prevalent causes of acute bacterial gastroenteritis in humans. From available figures, however, the incidence of infection during the neonatal period is probably low. For example during 1977-80, of 2255 cases reported to the Communicable Diseases Surveillance Centre for whom age details were available, 57 (2.5%) were neonates. Consequently, in Great Britain the clinical features, including complications of acute infection, are well recognised in older patients but are less well documented in the newborn. Mawer and Smith¹ described a baby of 34 weeks' gestation with

campylobacter in his stools who did not manifest signs of infection possibly because of previous antibiotic treatment.

We describe three newborns with bloody stools from which *C jejuni/coli* (one case) and *C jejuni* (two cases) were isolated.

Case reports

Patient 1. A girl weighing 3.5 kg was born by normal delivery at term 30 minutes after membrane rupture. This followed several days of maternal nausea, abdominal pain, loose stools, and mild pyrexia which was subsequently diagnosed as *campylobacter* enteritis. On the third day after birth the baby passed a loose stool containing fresh blood and mucus and yielding *C jejuni/coli* (this organism was not further identified), and in the subsequent 24 hours passed two more similar stools before they