

## Baby walkers . . . time to take a stand?

Sir,

I agree with the report of Gleadhill *et al* on the dangers of baby walkers.<sup>1</sup> I think, however, that the fact that two of the three cases they describe involved infants no older than 7 months who were left unsupervised in these baby walkers indicates that there was insufficient parental care. This would certainly appear to be so at the time of the accidents. Placing a young infant in a baby walker and thus giving him uncontrollable speed and mobility without supervision is as irresponsible as allowing a 6 year old to drive a motor car.

My experience is that those parents who are somewhat inadequate, depressed, or socially deprived are among the most ardent users of baby walkers. The infant is placed in this and then left to 'amuse' himself. These parents often have little insight into normal child development and are unprepared for the consequences of the mobility suddenly achieved by the infant.

Another factor is that it is usually the infant who is irritable and hyperactive who is most often placed in a baby walker. The combination of a hyperactive adventurous infant and an insufficiently observant parent is also found in other cases of accidental injuries and poisoning.<sup>2</sup> Education and warning labels may help but unfortunately these are often the families who are least amenable to advice on child care and safety.<sup>3</sup> Even if the baby walker complies with the strictest safety regulations accidents will still occur—especially from overturning. The total banning of the sale of baby walkers may be the only resort if these accidents are to be prevented completely.

### References

- 1 Gleadhill DNS, Robson WJ, Cudmore RE, Turnock RR. Baby walkers . . . time to take a stand? *Arch Dis Child* 1987;**62**:491-4.
- 2 Craft AW. Circumstances surrounding deaths from accidental poisoning 1974-80. *Arch Dis Child* 1983;**58**:544-6.
- 3 Polnay L. A service for problem families. *Arch Dis Child* 1985;**60**:887-90.

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Sir,

I share the concern about the safety of baby walkers, expressed by Gleadhill *et al*.<sup>1</sup>

The susceptibility of infants in baby walkers to burns was pointed out by Colville and his colleagues in Belfast,<sup>2,3</sup> who reported 31 severe burns over a decade, showing the hazards to which babies were being exposed.

Our own data confirm the conclusions of Gleadhill *et al* that these devices are still a source of serious injury, even after strenuous efforts by the British Standards Institute and by public information campaigns. Of 160 burns severe enough to merit admission to the Leicester Royal Infirmary Burns Unit over the last year, 3 (1.9%) were associated with the use of baby walkers. This represents

22.2% of children of baby walker age (8 to 14 months). Of 400 sequential burns over the last six months requiring outpatient treatment, however, none was connected with baby walkers.

Thus not only are these devices still causing burns, but the kind of burns they cause to a child robbed of his normal protective reflexes by these 'mobile straight jackets' are generally of a serious nature. I therefore agree that it is indeed 'time to take a stand' on the use of the baby walker devices.

### References

- 1 Gleadhill DNS, Robson WJ, Cudmore RE, Turnock RR. Baby walkers . . . time to take a stand? *Arch Dis Child* 1987;**62**:491-4.
- 2 Colville J. Infant walking aid hazard. *Lancet* 1966;**i**:209.
- 3 Miller R, Colville J, Hughes MC. Burns to infants using walking aids. *Injury* 1975;**7**:8-10.

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## Vasoactivity of the major intracranial arteries in newborn infants

Sir,

We read with interest the paper by Drayton and Skidmore<sup>1</sup> but suggest that their conclusions cannot be justified by the data provided in their paper. The statement that the major cerebral arteries are the main site of autoregulation is based entirely on the observation that there is no change in the cerebral blood flow (CBF) as measured by their Doppler method. We are not convinced that the method they used is valid and appropriate to the measurement of CBF.

Absolute flow is difficult to measure accurately using Doppler ultrasound.<sup>2</sup> The method used by Drayton and Skidmore is particularly inaccurate as small errors in the measurement of flow made at two points will lead to large errors in the calculated differences; although the two flow estimates are subtracted, the error is additive. Even under ideal conditions (a non-reactive circular aorta) accuracy of measurement of the aorta cannot be better than the order of a wavelength of ultrasound and will lead to an error of about 6% when measuring the diameter of the immature aorta (about 8 mm) and a 12% error in a cross sectional area. We calculate that for an infant weighing 1500 g where about 30% of the flow in the ascending aorta perfuses the head and arms and 80% of this perfuses the brain, then the smallest likely error in calculating the flow to the upper part of the body by the subtraction method is of the order of 50%. Details of these calculations are available on request to us. Our calculations are based on four assumptions: a closed ductus arteriosus, a brain weight of 150 g, CBF of 60 ml/100 g/minute,<sup>1</sup> and a cardiac output of 260 ml/minute/kg.<sup>3</sup>

There is a great deal of evidence to support the contention that regulation of CBF is mediated by the microvasculature. Drayton and Skidmore have, however, chosen to ignore these data in suggesting that the major cerebral arteries perform the main role in regulating blood