Reference

- ¹ Robinson M J, Clayden G S, Smith M F. Xanthines and necrotising enterocolitis. *Arch Dis Child* 1980; **55**: 494-5.

A J WILLIAMS
Department of Paediatrics,
H M Stanley Hospital,
St Asaph,
Clwyd, Wales

*Dr Robinson has confirmed that each of the babies was receiving oral xanthine at the start of the necrotising enterocolitis. EDITOR

Superfecundation

Sir,

In a recent article by James¹ it was suggested that the relationship between birthweight and the gestational age of dizygous twins, as assessed by the Dubowitz method, could be explained by superfecundation. If this hypothesis is valid, there should be no consistent difference in the Dubowitz scores of monozygous twins.

During a study of 66 twin pairs² we carefully examined all placentas at birth. Monozygous twins were diagnosed if their placentas were monochorionic and demonstrated vascular anastomoses. Unlike-sexed twins were regarded as dizygotic. In the study sample there were 12 monozygous and 30 dizygous pairs of twins. In the monozygous pairs the heaviest twin had the highest total Dubowitz score on 10 occasions while the lightest twin had the highest score on only 2 occasions. In the dizygous pairs, 21 heavier and 9 lighter twins had the highest score.

We conclude that the heavier twin scores higher than the lighter twin in both monozygous and dizygous twins. This suggests that birthweight and not superfecundation

is responsible for the Dubowitz method giving a higher scored gestational age to the heavier twin.

References

- ¹ James W H. Gestational age in twins. *Arch Dis Child* 1980; **55**: 281-4.
- ² Woods D L, Malan A F. Assessment of gestational age in twins. *Arch Dis Child* 1977; **52**: 735-7.

D L WOODS AND A F MALAN
Department of Paediatrics and Child Health,
University of Cape Town Medical School,
Observatory, Cape 7925,
Republic of South Africa

Dr James comments:

On average the Dubowitz scoring system estimates a higher gestational age in respect of the heavier member of a twin pair. The data presented here by Woods and Malan show that this occurs when the system is applied both to dizygous *and* monozygous pairs which suggests strongly that there is a flaw in the system, as claimed by these authors. However, I think they overstate their case when they suggest that their data rule out the possibility that in some dizygous cases superfecundation (and not the admitted flaw) may be the basis for such a result. After all, superfecundation *does* occur (admittedly with unknown frequency), and it seems entirely plausible to suppose that at confinement the first-conceived twin should weigh more than the second-conceived twin.

W H JAMES
The Galton Laboratory,
Department of Human Genetics
and Biometry,
University College, Wolfson House,
4 Stephenson Way,
London NW1 2HE