Correspondence

Adverse effects of nasogastric feeding tubes and the management of recurrent apnoea

Sir,

The role of miconazole in the treatment of systemic candidiasis was clearly described by Tuck¹ in his report of 2 cases. However, his paper also contained examples of the iatrogenic hazards of neonatal intensive care and these deserve comment.

In each case intravenous feeding was given through a centrally placed Silastic cannula because of recurrent apnoea. In Case 1 the sequence of events is clearly documented. From the time that nasojejunal feeds were introduced apnoeic episodes occurred, and on day 29 the baby collapsed after the passage of a nasal feeding tube. Earlier in 1980 Stocks² described work done at the Hammersmith Hospital which showed that nasal resistance in white infants was increased by 101-138% when a feeding tube was passed through one nostril. She also confirmed the common observation that a nasally-passed tube causes not only physical obstruction but also irritation to the nasal mucosa which results in increased resistance. As most preterm babies are unable to mouth breathe even when both nostrils are fully obstructed the adverse effects of nasally passed tubes on respiration, if overlooked, may lead to further complications of management as described by Tuck.

He states that there is an increase in the use of intravenous feeding in the management of preterm infants and that systemic candidiasis can be expected to become more common. This and other complications of intravenous feeding should be avoided. The experience in Oxford suggests that intravenous feeding can be restricted almost exclusively to the few babies in whom necrotising enterocolitis is suspected, and that in preterm infants and others with respiratory distress feeding tubes should always be passed orally. Although apnoeic attacks may occasionally be the result of regurgitation of gastric contents this has never been taken to be an indication to resort to intravenous feeding through a centrally placed catheter.

References

- ¹ Tuck S. Neonatal systemic candidiasis treated with miconazole. *Arch Dis Child* 1980; **55**: 903-6.
- ² Stocks J. Effects of nasogastric tubes on nasal resistance during infancy. *Arch Dis Child* 1980; **55**: 17-21.

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Dickens's children's hospital

Sir,

Douglas Gairdner¹ wondered whether 'the children's hospital' mentioned in *Our mutual friend* was The Hospital for Sick Children, Great Ormond Street. That this was so is an opinion which has strong support,² but there was another hospital which Dickens greatly admired and this was the East London Children's Hospital in Ratcliff. It was the subject of the sketch 'A small star in the East', written for *All the year round* and appearing later in *The uncommercial traveller*.

I have been unable to find the date of publication of 'A small star in the East' but most of the essays and sketches in *The uncommercial traveller* had appeared by 1865, which is the year in which *Our mutual friend* was completed; therefore it is possible that it is the East London Children's Hospital which is referred to in Dickens's last great novel.

References

- ¹ Gairdner D. Breath-holding attacks—Dickens 1864. *Arch Dis Child* 1981; **56**: 124.
- ² Hardwick M, Hardwick M. *The Charles Dickens encyclopedia*. Reading: Osprey, 1973: 178.

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Possible pitfalls in the interpretation of inspiratory flow volume curves

Sir,

Smith and Cooper¹ demonstrated residual upper airways obstruction in 7 of 20 children who had laryngomalacia in infancy. Certainly the non-invasive recording of an inspiratory flow volume curve is a useful method in the assessment of extrathoracic airways obstruction.

It is doubtful if a shallow inspiratory curve alone (and the resulting high midvital-capacity ratio) is sufficient proof for the existence of an obstructing lesion. In the case of patent upper airways the inspiratory flow is mainly effort dependent. In contrast to the expiratory flow volume curve which is determined by dynamic intrathoracic airways compression, suboptimal effort alone can produce a seemingly abnormal inspiratory curve and consequently a low inspiratory flow measurement at 50% of the vital capacity. Some children are consistent in their level of suboptimal effort, thereby faking reproducibility in repeated recordings.

There is a satisfactory way to differentiate suboptimal inspiratory effort from true flow limitation by stenosis:^{2,3} extrathoracic upper airways obstruction produces a