

Correspondence

Ileal meconium plugs

Sir,

The article by Talwalker and Kittur¹ raises important questions. Although terminal ileal meconium plugs unassociated with cystic fibrosis have been described, the authors made no reference to how this disease was excluded in their patients. They simply stated that 'none of our 200 patients with neonatal intestinal obstruction suffered from meconium ileus'. The clinical diagnosis of cystic fibrosis is quite difficult in the neonatal period. The authors did not mention whether they had sweat tests or necropsy findings to exclude cystic fibrosis. Such information is vital since many of their patients developed complications (such as atresia, volvulus, pseudocysts) which are common in meconium ileus but had previously been unreported in meconium plug syndrome.

Reference

- ¹ Talwalker V C, Kittur D H. Ileal meconium plugs. *Arch Dis Child* 1980; **55**: 288-91.

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Dr Talwalker and Dr Kittur comment:

Our report of 11 patients with ileal meconium plugs included only 2 patients who have survived. In one of these patients sweat electrolytes were normal, and the other patient has not had any symptoms suggesting fibrocystic disease of the pancreas. Seven of the 9 patients who died were examined at necropsy and their pancreata were normal morphologically as well as histologically.

Virtual absence of meconium ileus as well as fibrocystic disease of the pancreas has been noted by paediatric surgeons, paediatricians, and pathologists in India. Dr S G Deodhare, professor of pathology, Grant Medical College, Bombay, stated 'During 25 years I have done several thousand post mortems, but I have hardly ever come across fibrocystic disease of the pancreas', and Dr A G Desai, professor of paediatrics, Grant Medical College, said 'Although we consider the possibility of fibrocystic disease of the pancreas in any patient with recurrent respiratory infection or gastrointestinal infection and do the sweat electrolyte test on several patients, we make the diagnosis very rarely'.

The meconium observed in the patients with ileal meconium plug was normal in appearance and consistency behind the head of white chalky plug. The tenaceous and sticky meconium of meconium ileus has not been observed by us in any patient with neonatal intestinal obstruction. Necropsy examination is performed on most patients who have died after neonatal intestinal

obstruction. In none of these did the pancreas show any abnormality. We are convinced that the disease entity of fibrocystic disease of the pancreas and associated meconium ileus is a rare occurrence here although it is known to be the most common single-gene recessive anomaly in Britain.

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Xanthines and necrotising enterocolitis

Sir,

I wish to add two cases of necrotising enterocolitis (NEC) associated with xanthine administration to the three cases already reported by Robinson *et al.*¹

Case 1

A 1110-g 28-week gestation boy, the first twin, developed apnoeic attacks on day 5 having had no respiratory difficulties beforehand. Oral theophylline was administered and plasma levels within the normal range maintained. Clinical response was satisfactory and theophylline was stopped on day 15. During the next 24 hours he developed NEC. Cultures of stool and blood were negative.

Case 2

A 1230-g 28-week gestation boy, the second twin, developed apnoeic attacks on day 2 having had no respiratory difficulties beforehand, apart from mild expiratory grunting immediately after birth with normal arterial oxygen levels. Oral theophylline was administered and appropriate plasma levels maintained. Clinical response was satisfactory and theophylline was stopped on day 15. Within 24 hours he developed NEC. Cultures of stool and blood were negative.

Both twins survived with supportive medical treatment.

It is not clear from the report of Dr Robinson and colleagues whether the affected infants were *still* having theophylline at the time of presentation of NEC.* Clinical signs in our patients developed within 24 hours of the last dose of theophylline.

These anecdotal reports do not confirm a relationship between xanthine derivative treatment and NEC but they should serve to make us alert to the possibility. It would be interesting to know whether those treating apnoeic attacks in premature babies with continuous positive airways pressure see a similar incidence of NEC to those using xanthine derivatives.