Table 2 Asthma diary card scores for last 28 days of each treatment period

	Clemastine		Placebo	
	Mean	Range	Mean	Range
Symptom score	61.9	12–147	62.1	12–138
Symptom-free days	8.3	0–23	8.5	0–17
Doses of bronchodilator	77.1	8–260	81.4	0–203
PEFR (l/m)				
Morning	274	174–475	264	156–486
Evening	288	200–482	288	186–504

falls from baseline in PEFR and $FEV_{0.75}$ of 31% and 36% respectively, compared with falls after placebo of 33% both for PEFR and $FEV_{0.75}$.

We could not find any significant clinical benefit from clemastine as judged by symptom scores, asthma-free days, total bronchodilator usage, or twice-daily PEFR measurements at home (Table 2). The strongest trend noted was that 9 of the 15 children used fewer doses of salbutamol and other bronchodilators during the active period.

Discussion

Clemastine in a dose of 200 µg delivered by metered aerosol was a bronchodilator in these children. Our findings are similar to those reported by Nogrady *et al.*¹ in adult asthmatics in whom the maximum effect was reached slowly. In this study we did not find a significant improvement from baseline in $FEV_{0.75}$ until one hour after inhalation of clemastine (Table 1). This makes it unlikely that clemastine would ever find a role in the management of acute asthma in childhood.

We observed non-significant trends for the active drug period to be associated with less use of the bronchodilators, higher average morning PEFR at home, and higher baseline values for PEFR and $FEV_{0.75}$ in the respiratory laboratory. However, the overall results of the clinical trial (Table 2) are

discouraging with regard to the efficacy of the specific H_1 receptor antagonist as treatment for chronic asthma. Only one child was strikingly better on clemastine than placebo. He was matched by 2 others who showed the reverse trend. Furthermore, the poor clinical response at home was probably not due to inadequate dosage and poor inhalation technique because we were able to measure significant bronchodilatation when the children used the metered aerosol in the respiratory laboratory.

Although we have shown that clemastine is a bronchodilator in a group of children with residual symptoms despite conventional treatment for asthma, this study does not suggest that clemastine will be a useful addition to the management of their asthma.

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Relation between faecal fat and energy in preterm infants

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SUMMARY The energy measured in the faeces correlated highly ($r=0.93$) with faecal fat in 111 24-hour stool collections from 37 preterm infants. It is easier to measure faecal energy than faecal fat, and energy measurements provide a better indication of nutrient malabsorption than faecal fat alone.

Impaired energy balance and low energy digestibility are common in preterm infants.^{1,2} This is likely to be due mainly to fat malabsorption, but faecal energy is also derived from unabsorbed or endogenous protein and carbohydrate. The energy content of the faeces is fairly easy to measure by ballistic bomb calorimetry,³ whereas faecal fat

Figure Correlation between faecal fat and faecal energy in 111 24-hour stool collections from 37 preterm infants.

estimations are cumbersome and probably less accurate owing to difficulties with extraction procedures. The purpose of this investigation was to determine whether fat is indeed the major contributor to faecal energy, since calorimetry could then be used to estimate the degree of fat malabsorption.

Methods

Three-day stool collections were made in 37 preterm infants (mean birthweight 1436 g, SD 317, gestation 32.3 weeks, SD 2.2). Stools were collected on polyester napkin liners (Boots) and stored frozen while awaiting analysis. Each day's collection was aggregated, weighed, freeze-dried, and homogenised

with a grinder. Aliquots were then used for determination of energy by ballistic bomb calorimetry,¹ and fat by a Soxhlet gravimetric method.⁴

Results

The figure shows the correlation between faecal fat and energy, with the 95% confidence limits. The correlation coefficient is $+0.93$ ($P < 0.001$). A given faecal energy determination will predict faecal fat to an accuracy of approximately ± 1 g.

Discussion

It is apparent that fat is the major constituent of faecal energy in preterm infants and faecal fat content can be predicted with a fair degree of accuracy from faecal energy measurements. For the purposes of research faecal energy is probably more useful than faecal fat, unless fat absorption is specifically under investigation, since it provides data on the overall degree of energy malabsorption, which can then be used to calculate the difference between dietary energy and faecal losses.

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Cryptic mediastinal masses causing airways obstruction

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SUMMARY In 3 infants, severe airways obstruction was caused by mediastinal lesions which were not evident on the antero-posterior chest radiograph. Their presence was demonstrated by barium swallow examination. Each infant had thoracotomy carried out urgently. Duplication cysts (without associated cervicodorsal vertebral anomalies) were present in 2 patients and neuroblastoma in the third.

A congenital anomaly compressing the trachea or main bronchus may not be detected at an early stage, despite symptoms. There are two main reasons: (1) the history may be misleading, and (2) there may be nothing on the antero-posterior chest radiograph to suggest that the clinical and radiological features are secondary phenomena.

In cases of stridor, wheezing, or air trapping in the lung, careful scrutiny of the mediastinum for mass