Treatment with iron increases weight gain and psychomotor development

Sir,

Aukett *et al* have shown that Asian toddlers with iron deficiency anaemia had an increased rate of weight gain and more of them achieved the expected rate of development when treated with oral iron.¹ Although they considered the causality at some length and mention in passing that severe malnutrition is a well recognised cause of developmental delay, they do not discuss the possibility that developmental progress was secondary to improved weight rather than improved iron state. A partial correlation of developmental score on haemoglobin increase controlling for nutritional state could clarify this further. A significant correlation not explained by nutritional state would imply an independent effect of treatment with iron and would perhaps come nearer to answering their question whether 'iron deficiency anaemia may adversely effect cognitive development and behaviour'. If the factors interact and there is no definite independent effect then perhaps they should state this more clearly. No one doubts that iron deficiency anaemia is worth treating. There are grey areas, however, where a small child with borderline development may have a low/normal haemoglobin. It may be that energy supplements would be more suitable than iron to increase growth and development. Until a trial comparing these two alternatives is performed the question will remain open.

Reference

- ¹ Aukett MA, Parks YA, Scott PH, Wharton BA. Treatment with iron increases weight gain and psychomotor development. *Arch Dis Child* 1986;**61**:849-56.

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Drs Aukett, Parks, Scott, and Wharton comment:

We thank Dr Poulton for her interest.

In previous studies we have found that extra analyses of our data suggested or performed by others have enhanced our own interpretation.^{1,2} We shall see whether her suggestions can be accommodated by further analysis. We are not convinced by her subsequent arguments, however, and feel she may have failed to grasp the concept of 'pragmatic trials'.³ Whatever the exact physiological pathway from iron supplementation to psychomotor development, the trial showed that more supplemented children achieved at least six extra skills. Perhaps, as she suggests, this was because iron improved their protein energy nutrition (by an increased appetite?) and thence psychomotor achievement, although if this were so we might have expected iron deficient children in the community studied to have evidence of protein energy undernutrition as well. This was not so; indeed, the iron deficient children had some evidence of better protein energy nutrition.⁴

References

- ¹ Viegas OAC, Scott PH, Cole TJ, Eaton P, Needham PG, Wharton BA. Dietary protein energy supplementation of pregnant Asian mothers at Sorrento, Birmingham. II: Selective during third trimester only. *Br Med J* 1982;**285**:592-5.
- ² Campbell-Brown M, Rossiter CE. Dietary protein energy supplementation of pregnant Asian mothers at Sorrento, Birmingham. *Br Med J* 1982;**285**:1579.
- ³ Gore S. Assessing clinical trials—trial discipline. *Br Med J* 1981;**283**:211-3.
- ⁴ Grindulis H, Scott PH, Belton NR, Wharton BA. Combined deficiency of iron and vitamin D in Asian toddlers. *Arch Dis Child* 1986;**61**:843-8.

Inhaled beclomethasone and oral candidiasis

Sir,

I was interested to see the paper by Shaw and Edwards on 'Inhaled beclomethasone and oral candidiasis'.¹

In that paper they stated that the incidence of candidiasis seemed to be the same whether a rotohaler or a standard aerosol inhaler was used. In my experience the standard type of inhaler is likely to deposit steroids at the back of the throat, especially when used by children.

Two patients of mine regularly contract symptomatic oral candidiasis when they go on holiday and do not take with them the rather bulky Nebuhaler.

I would suggest that all children having problems with candidiasis initially try some form of variation of the standard inhaler such as the Nebuhaler.

Reference

- ¹ Shaw NJ, Edmunds AT. Inhaled beclomethasone and oral candidiasis. *Arch Dis Child* 1986;**61**:788-90.

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Dr Edmunds comments:

Thank you for giving me the opportunity to see the letter written by Dr Barnes in response to our recent paper 'Inhaled beclomethasone and oral candidiasis'. I was interested to learn of his experience. It is important to distinguish between colonisation with candida detected by culture of pharyngeal swabs and clinically apparent oropharyngeal candidiasis. Only one child among all 229 who were swabbed in our survey had clinically evident candida infection.

Our data showed that method of inhalation of beclomethasone did not influence the frequency of colonisation with candida. As clinical infection occurred only once we are not in a position to say whether or not method of inhalation influences its incidence.