Correspondence

Nutrition and elimination diets

Sir,

We were most interested to read the paper by David and colleagues,1 and would wholeheartedly endorse their statement that ‘avoidance of multiple foods is potentially hazardous and requires continued paediatric and dietetic supervision’. Moreover we feel that the social and psychological implication of these diets should not be overlooked. No doubt this paper will be widely quoted by those wishing to discourage the use of these diets especially as it is entitled ‘Nutritional hazards of elimination diets . . . ’.

The authors’ data suggest, however, that on balance the children they looked after were as well nourished as the control children. From their table, 10 of 23 children on the elimination diet were receiving less than 75% of the recommended daily allowance for calcium, but they were as well nourished as the controls in terms of other nutrients, and 90% of the controls were receiving less than half the recommended daily allowance for vitamin D. As they rightly point out, the recommended daily allowance may not be a good guide to true requirements, and there is evidence that children grow normally on calcium intakes well below this.2 Furthermore, poor growth and the development of rickets are probably more dependent on vitamin D status than on calcium intake.2 It is doubtless prudent to ensure such children receive the recommended daily allowance of calcium, but supplementation to achieve this is easily instituted. We are at a loss to explain the authors’ self-deprecation when they have illustrated the very point they seem to dismiss, namely that properly supervised and supplemented exclusion diets are not nutritionally hazardous. Perhaps their paper ought to have been entitled ‘the safety of properly supervised elimination diets in children with atopic eczema’.

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Dr David and co-workers comment:
The study referred to1 simply examined the intake of a few selected nutrients. Neither the patients nor the controls were described as being well nourished, and no data on height, weight, growth velocity, skin fold thickness, or biochemical parameters were given. The title might have been less cautious had the study been of normal children. There is concern, however, that some children with atopic eczema not on diets are either thin or short, or both, a subject of current study in several centres. Further, some children with eczema are kept out of sunlight for prolonged periods, and an abnormal vitamin D status may render them especially vulnerable to adverse effects of a low calcium intake, possibly explaining the occurrence of rickets in one patient.3 This case showed that even in a children’s hospital with two experienced full time dietitians there can be great difficulty in ensuring ‘proper’ supervision of exclusion diets. To describe elimination diets as safe, with the difficulties of maintaining regular supervision, the problems of interpretation of recommended dietary amounts, the worries about poor growth, and the hazards of anaphylactic shock4 seems slightly premature and possibly misleading.

References

Role of the microcomputer in formulating neonatal nutrition regimens

Sir,

Dr MacMahon presents a computerised solution to the problem of intravenous nutrition in neonates.1 We venture to suggest that this is ‘BASICALLY’ an abuse of his pharmacy and possibly his computer.

In our experience it is not necessary to make frequent adjustments to parenteral nutrition regimens, nor where it is, is it safe or desirable to delegate to the junior staff. In 14 months we have provided parenteral nutrition for 21 neonates for more than seven days (19 babies were less than 1·5 kg at birth, and of these 12 were less than 1·0 kg), in total providing 526 patient days of intravenous feeding solution. The bulk of this has been provided using three standard formulas, which vary only in their amino acid content (10, 20, or 30 ml/kg of Vamin) accounting in total for 87% of the prepared bags. Of the remaining 71 bags it has been necessary to compute only 10 changes to the basic formulas. For example, we have found it necessary to provide an increased sodium solution, but once having derived the pharmacy work sheet this has been applicable to several patients.

In practice our system has worked so well, with considerable savings in pharmacy time and money, that we are now actively investigating the long term stability of our standard solutions to permit bulk preparation.

We agree that the solution to intravenous nutrition is ‘BASIC’ but feel frankly that the high level language
should be a dialogue twixt paediatrician and pharmacist, not houseman and computer.

Reference

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Dr MacMahon comments:
Dr Davies and Mr Leivers comment that they have not found it necessary to make frequent adjustments to their parenteral nutrition regimens and that they therefore usually use one of three standard formulas. I have in the past worked in a major referral unit which used a similar system. I agree that apparently satisfactory parenteral nutrition is indeed possible with such a system when the infant is metabolically stable. There is an inevitable tendency, however, with such a system to either postpone the initiation of parenteral nutrition in the metabolically unstable infant or to tolerate minor electrolyte disturbances rather than alter a standard solution.

In my experience allocating the problem to a senior staff member does not protect against mistakes. In the increasingly complex environment of a modern neonatal intensive care unit errors of all sorts are all too common. I believe that computers should be used whenever possible to help alleviate this problem.

The clinical importance of minor electrolyte disturbances is certainly debatable. In the context of the availability of inexpensive microcomputers I do, however, submit that it is manifestly absurd that arithmetical complexity alone should act as a constraint on optimal clinical management.

Glass furniture hazard

Sir,

We were interested to read Bell’s recent report1 on glass injuries. About 50 children are admitted each year to the children’s ward at Moorfields Eye Hospital with serious eye trauma and these constitute about five per cent of all admissions to the department. The injuries are caused by a variety of agents, ranging from darts, arrows, balls, bushes, broken glass, and fireworks to airgun pellets, dog bites, drawing pins, scissors, and bomb incidents. The number of serious eye injuries due to broken glass has remained relatively constant in the last few years (see Table), although there have been interesting changes in the traumatising agents.

Just as legislation in the sale of fireworks to minors has led to fewer firework injuries to the eyes, we are now witnessing fewer ophthalmic tragedies due to shattered windscreen, presumably attributable to accident prevention propaganda and the recently introduced seat belt legislation. Unfortunately, the new vogue in glass

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Table: Number of injuries due to broken glass in relation to total admissions due to trauma

<table>
<thead>
<tr>
<th>Year</th>
<th>Total admissions</th>
<th>Admissions due to trauma</th>
<th>No of serious injuries due to broken glass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>1150</td>
<td>59 (15 girls, 44 boys)</td>
<td>5</td>
</tr>
<tr>
<td>1981</td>
<td>1290</td>
<td>53 (13 girls, 40 boys)</td>
<td>6</td>
</tr>
<tr>
<td>1982</td>
<td>1102</td>
<td>48 (7 girls, 41 boys)</td>
<td>5</td>
</tr>
<tr>
<td>1983</td>
<td>1035</td>
<td>55 (11 girls, 44 boys)</td>
<td>7</td>
</tr>
</tbody>
</table>

furniture, particularly large coffee tables and glass doors is becoming a major hazard in the home. In the past year we have seen a child who lost an eye and another who required corneal grafting after simple accidents which led to the shattering of glass table tops.

Unlike Dr Bell we feel that educating supervising adults about the dangers of glass in the home gives only partial grounds for optimism in reducing accident rates, as most parents perceive accidents to be outside their control.2 Improved product design using safety glass in furniture would minimise environmental hazard and probably reduce accident rates. Legislation has had considerable success in accident prevention in other areas3 and we believe this to be the most fruitful strategy in reducing serious childhood accidents due to broken glass.

References

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Treatment choice in acute rheumatic carditis

Sir,

We read with interest the paper by Human et al4 regarding steroid treatment in acute rheumatic fever. We also think that steroids should be used in each case of rheumatic fever with carditis, regardless of the severity of the carditis. Two unresolved questions were raised by the authors: the dosage and duration of steroid treatment. Continuous steroid treatment for three weeks, as practiced by Human, may cause suppression of the hypothalamic-pituitary-adrenal axis, with all its consequences.5 Furthermore, as the natural history of rheumatic fever is six to eight weeks, it is recommended that treatment be given for this period.6 To overcome these two problems we have been treating patients suffering from rheumatic fever with carditis with alternate day steroid treatment.

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