Correspondence

Archives of Disease in Childhood, 1976, 51, 159.

Fat absorption from two infant milks

Sir,

On the general principle of stimulating a healthy competitive spirit among the infant milk firms, we changed from SMA Ready-to-feed to Cow and Gate V-formula in July 1974, for the routine feeding of bottle-fed infants in this hospital. I was interested to read the report from Milner et al. (Archives, 1975, 50, 654) that they had shown fat malabsorption in infants on V-formula compared with SMA, since this tended to confirm the feelings of some of our staff that babies thrive better on the latter.

However, an investigation of the rates of weight gain of babies fed with the two milks does not confirm our fears about the suitability of V-formula for feeding small infants, nor does it suggest that net energy ingestion is significantly less in V-formula-fed babies. I have examined the weight gains in all immature appropriately-grown babies admitted to our Special Care Baby Unit during the periods June 1973-June 1974 (SMA), and July 1974-July 1975 (V-formula). There were no other changes in the routine management of healthy immature infants during this time. Weight gains were calculated by the method of least squares during two periods in each infant, unless these periods overlapped by more than 50%, in which case the first was used: (1) days 15–28 inclusive, (2) the period between the attainment of 2000 g body weight and 2300 g body weight (the usual discharge weight). Results are given in the Table and show no significant difference in weight gain on the two milks during the first period, and a significantly more rapid weight gain on V-formula during the second period.

It is difficult to sustain the view that there is any long-term disadvantage in the use of V-formula in comparison with SMA. I suggest that the fat malabsorption observed by Milner and his colleagues during V-formula feeding in their infants may have been the result of carrying out the fat balances too soon after changing milks. It is conceivable that malabsorption of saturated fats such as C16:0 may be temporary, and the infants may need several days of exposure to the increased level of intake to maximize intraluminal or mucosal digestion. Studies on high fat diets in preterm infants which I am carrying out in this unit tend to support this, since net energy ingestion increases in most infants during the whole of a 10-day period on high-fat feeding.

O. G. BROOKE,
Special Care Baby Unit,
St. Mary's Hospital,

Prof. R. D. G. Milner comments:

Thank you for giving me the opportunity to respond to the letter by Dr. O. G. Brooke.

We agree with Dr. Brooke that infants fed Cow and Gate V-formula gain weight as fast as those fed SMA Ready-to-feed formula. The Editors will recollect that evidence supporting this viewpoint was part of the original manuscript submitted for publication but was finally omitted in the light of the referee's report.

I think that Dr. Brooke's suggestion that fat malabsorption may have been the result of carrying out the fat balances too soon after changing milks is unlikely

### TABLE

<table>
<thead>
<tr>
<th></th>
<th>SMA</th>
<th>V-formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of infants</td>
<td>26</td>
<td>33</td>
</tr>
<tr>
<td>Birthweight (g ± SD)</td>
<td>1724*(±359)</td>
<td>1698*(±246)</td>
</tr>
<tr>
<td>Gestational age (w ± SD)</td>
<td>33-4*(±2·9)</td>
<td>33-7*(±2·0)</td>
</tr>
<tr>
<td><strong>Days 15–28</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake (ml/kg per d)</td>
<td>207*(±16·4)</td>
<td>206*(±14·1)</td>
</tr>
<tr>
<td>Daily weight gain (g/kg per 100 ml feed)</td>
<td>7·5*(±1·7)</td>
<td>8·1*(±1·7)</td>
</tr>
<tr>
<td><strong>2000–2300 g body weight</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake (ml/kg per d)</td>
<td>199*(±11·3)</td>
<td>194*(±8·9)</td>
</tr>
<tr>
<td>Daily weight gain (g/kg per 100 ml feed)</td>
<td>7·4†(±1·5)</td>
<td>8·3†(±1·5)</td>
</tr>
</tbody>
</table>

*NS
† t = 2·25, P <0·05.

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Letter: Fat absorption from two infant milks.

O G Brooke

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