Letters to the Editor

Breech delivery and cryptorchidism

SIR—In their case control study of cryptorchidism (J Epidemiol Comm Health 1983 37 238–44) Swerdlow and coworkers report that their most striking finding is the high risk of cryptorchidism associated with delivery in the breech position. They suggest that the association is a direct one which presumably results from trauma to the testes during labour and delivery. Such an observation, if confirmed, might lead to a recommendation for caesarean delivery of all male infants in breech position because of the risk of testicular neoplasia that is associated with cryptorchidism. However, it seems prudent first to exclude other possible explanations for a relation between breech deliveries and cryptorchidism.

The authors note that breech delivery is associated with a number of abnormalities. The well-known relation between breech delivery and prematurity leads to associations with early delivery\(^1\)\(^2\) and low birth weight.\(^1\)\(^2\) These latter factors may well be risk factors for cryptorchidism, probably because of shortened gestation since the testes do not descend into the scrotum until the eighth month. Thus it seems necessary at least to adjust for the effects of shortened gestation and low birth weight before attributing the increase in cryptorchidism to breech delivery per se.

In a population-based case control study just completed we also found an increased relative risk of cryptorchidism associated with breech delivery (RR = 3.1 and 1.3 against two different control groups, one loosely matched and one closely matched). However, these estimates were substantially reduced by the simultaneous adjustment for birth weight. It would be of great interest to know the influence of an adjustment for birth weight and/or gestational age on the estimated relative risk of cryptorchidism associated with breech delivery derived by Swerdlow and coworkers.

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References


The authors reply as follows:

We found only weak relations between cryptorchidism and birthweight or gestation (see table 3 of the paper) whereas the relative risk associated with breech labour was apparently high, though based on small numbers (relative risk = 4.5 (9/2) for those going into labour in the breech position). As the number of subjects undergoing breech labour was small, however, it is clearly not possible for us to exclude completely the explanation put forward by Beard et al. For interest, we have recomputed the relative risk associated with experience of breech labour after adjusting for the effects of birthweight and gestation (using the method of logistic regression for matched pairs with the grouping of birthweight and gestation as given in table 3 of our paper). In order to do this it was necessary to exclude from the analysis matched pairs in which the birthweight and/or gestation were unknown for either member of the pair. This led to

Relative risks associated with breech labour after adjustment for birthweight and for gestational age

<table>
<thead>
<tr>
<th>Factors adjusted for in the analysis</th>
<th>Analysis of patients with known birthweight</th>
<th>Analysis of patients with known birthweight and gestation</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>RR</strong>*</td>
<td><strong>(\chi^2)</strong></td>
</tr>
<tr>
<td>None</td>
<td>9.00</td>
<td>7.36</td>
</tr>
<tr>
<td>Birthweight</td>
<td>9.29</td>
<td>6.75</td>
</tr>
<tr>
<td>Gestation</td>
<td>5.50</td>
<td>3.38</td>
</tr>
<tr>
<td>Birthweight and gestation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of case control pairs in analysis</td>
<td>141</td>
<td></td>
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</tbody>
</table>

\*Relative risk associated with the breech labour after adjustment for the factors specified
\*Likelihood ratio test for the effect of breech labour after adjustment for the factors specified
the exclusion of one pair in which the control had breech labour from the analyses including birthweight, and the exclusion of two additional pairs in which the case had breech labour from the analyses including gestation. For those pairs included in the analyses the unadjusted relative risk estimate associated with breech labour was 9·0 (9/1) for the birthweight analyses and 7·0 (7/1) for those involving gestational age. These contrast with the relative risk of 4·5 (9/2) in the analysis involving all pairs. These differences emphasise the small numbers of breech labours on which our risk estimates are based. Nonetheless, as shown in the table, adjustment for either of these factors did not have a substantial effect on the estimate of relative risk associated with breech labour.

Whether it is appropriate to thus apply statistical adjustments for birthweight and gestation to calculations of the risk of cryptorchidism associated with breech labour depends upon the mechanism(s) of any association of low birthweight with risk of cryptorchidism persisting beyond infancy, and these mechanism(s) are not yet known clearly.

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Epidemiology and measures of disablement

SIR—Recently I have read a short, lucid, and comprehensive new book introducing community medicine and new editions of two outstanding and widely read textbooks. The authors are to be congratulated, but I was disappointed at the lack of emphasis given to the assessment of disablement in these books. Disablement should be viewed alongside mortality and morbidity as one of the dimensions in the assessment of "community health", and it should be a component of outcome measures used in clinical audit and the monitoring and evaluation of health services. Diagnostic labels, for example, cerebral haemorrhage, multiple sclerosis, rheumatoid arthritis, diabetes, do not convey the degree of associated disablement. Survival, restoration to normal physiological and biochemical values, changes in the clinical condition, and return to paid employment are insufficient measures of the outcome of many of today's treatments (eg, renal dialysis, amputations in the elderly, use of anti-rheumatic and cytotoxic drugs) and of physiotherapy and other rehabilitation activities. Certainly there are many difficulties in the measurement of disablement, not least those arising from the complex interplay of impairment, personality, and the social and physical environment. Nevertheless students should be introduced to the concepts of impairment, disability, and handicap, and to the various approaches (and the shortcomings) that are available to assess their presence and severity.

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References


Consumption of trans acids in relation to heart disease

SIR—The Institute of Shortening and Edible Oils would like to comment on the recent articles by Thomas et al. The authors report a higher proportion of "lower" trans acids (16:1 and 18:1) in adipose tissue taken post mortem from 136 people who died of heart disease (cases) compared with 95 individuals who died of unrelated causes (controls). Noting that "lower" trans acids are more abundant in commercially hydrogenated fats than in ruminant-animal fats, the authors conclude that "the cases consumed a higher amount of hydrogenated fat relative to ruminant-animal fat than did the controls". The authors conclude further that "those hydrogenated fats having higher content of lower trans acids will present the greater risk and in this respect it is possible that some hydrogenated vegetable oils may well be more harmful than hydrogenated marine oils". This is sheer speculation without basis in fact.

Thomas et al clearly are speculating and do not provide convincing evidence that the heart disease in their cases was directly related to consumption of trans acids. The authors claim that the difference in lower trans acid levels (16:1 plus 18:1, designated as "T_L") between cases and controls is statistically significant. However, the absolute difference is small and the variability is high. In table 1, the authors present mean T_L values for cases and controls for 10 regions of the UK but do not present overall mean values. From these data I calculated overall (unweighted) mean T_L values to be 3·31% (of total adipose tissue lipid) for cases and 3·08% for controls.