Short term increase in risk of breast cancer associated with full term pregnancy

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Patients and controls were matched for admitting hospital and within five year age groups but not for parity. The present analysis aimed at detecting any increase in the risk of breast cancer shortly after a full term pregnancy. The interval between the date of diagnosis of breast cancer and the last term birth was studied. As this is related to age, age at first term birth, and parity these variables were adjusted for in the analysis.

Only women under 50 with two or more children were included to accord with the analysis by Bruzzi et al, and this resulted in the study becoming unmatched (422 cases and 447 controls). The generalised interactive modelling (GLIM) package was used to estimate the maximum likelihood of effects. Graduated levels of exposure were tested by linear trend tests.

The two groups were comparable in terms of centre of recruitment, which was ignored in subsequent analyses. An increased risk of breast cancer was associated with decreasing interval since last term birth (p=0.021), increasing age at first term birth (p=0.006), and decreasing parity (p=0.002) (table). When women aged under 40 and 40-49 were considered separately the trends were broadly similar, although not all were significant.

Comment

Our results suggest that a transient increase in the risk of breast cancer occurs after full term pregnancy.
Proliferative retinopathy and nephropathy at presentation in young insulin dependent diabetics

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I report the occurrence of proliferative diabetic retinopathy as the presenting symptom of type I diabetes in two young patients who also had polyneuropathy and early nephropathy. Such a presentation is extremely rare.

Case reports

Case 1 — A 23 year old woman who had had polyuria for three months presented to her optician with blurring of vision. She had neovascularisation of the left optic disc and haemorrhages and exudates typical of diabetic retinopathy affecting both eyes. Her visual acuity was reduced to 6/18 in the right eye and 6/12 in the left eye. Fluorescein angiography showed extensive vascular exudation in both retinas, and she was given argon laser treatment. She weighed 52 kg and had not lost weight recently. She had a blood glucose concentration of 18 mmol/l, ketonuria, and a blood pressure of 124/80 mm Hg. Her sense of vibration and light touch in her feet was diminished, and deep tendon reflexes in her ankles were absent. She required 42 units of insulin daily in a conventional regimen of two injections, and her diabetes was easy to stabilise. Her glycated haemoglobin concentration was 15% (normal 5.3-7.2%), and urinary excretion of protein after her diabetes had been stabilised was 120 mg/24 h (normal <30 mg/24 h). Special investigations showed typical type I diabetes (table).

Case 2 — A 29 year old white man presented with a one month history of blurring of vision and a two month history of nocturia. He had a blood glucose concentration of 22 mmol/l and trace ketonuria. He weighed 65 kg, having weighed 102 kg 10 years previously. His blood pressure was 140/108 mm Hg, and examination of the cardiovascular system showed no abnormalities. Perception of vibration and temperature in his toes and the deep tendon reflexes in his ankles were diminished. His visual acuity was 6/12 in the right eye and 6/6 in the left. There was neovascularisation of both retinas and of the disc in the right eye with typical features of background diabetic retinopathy. Extensive laser treatment was given bilaterally. Visual acuity deteriorated, and he developed vitreous haemorrhages. His glycated haemoglobin concentration was 16-5%. An overnight (first morning) sample of urine had an albumin concentration of 55 mmol/l (normal <20 mmol/l). His diabetes was stabilised with 48 units of insulin given as two injections daily (table).

Characteristics of two patients presenting with proliferative diabetic retinopathy

<table>
<thead>
<tr>
<th>Case</th>
<th>Case 1</th>
<th>Case 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Jo11 cell antibody</td>
<td>&lt;770</td>
<td>520</td>
</tr>
<tr>
<td>Serum C peptide after stimulation with glucagon (pmol/l)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily insulin requirements (units/kg body weight)</td>
<td>HLA-A2, A11, B8, Bw55, DR3, DR4</td>
<td>HLA-A1, A29, B8, B44, DR3, DR4</td>
</tr>
<tr>
<td>Tissue type</td>
<td>0.81</td>
<td>0.74</td>
</tr>
</tbody>
</table>

*Normal >1000 pmol/l.