THE ROLE OF ETHNICITY IN GESTATIONAL DIABETES MELLITUS – RETROSPECTIVE STUDY IN A PORTUGUESE HOSPITAL

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introduction

Gestational diabetes mellitus (GDM) is associated with increased risk for pregnancy and delivery complications.

Ethnicity is a recognized risk factor (Asian and Black Afroamerican have a higher risk of developing GDM than Caucasian)

Health providers should be familiar with differences in expected outcomes (especially if ethnic diversity, as in Portugal)

Objective: compare characteristics and maternal/fetal outcomes of Asian, Black and Caucasian women with GDM.

methods

Retrospective study

Pregnant women with GDM followed in a Portuguese hospital, Hospital Beatriz Ângelo, from 2012 to 2015

Demographic characteristics

Other risk factors for GDM

Previous hypertension

Maternal/fetal outcomes were evaluated

X² tests were performed. Significance was set at P<0.05.

results

Pregnant women with GDM (n=326)

according to country of birth and skin color

<table>
<thead>
<tr>
<th>Country of Birth</th>
<th>Asian (n=57)</th>
<th>Black (n=54)</th>
<th>Caucasian (n=215)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portugal</td>
<td>16 (28%)</td>
<td>2 (18%)</td>
<td>3 (14%)</td>
</tr>
<tr>
<td>Brazil</td>
<td>13 (23%)</td>
<td>5 (19%)</td>
<td>15 (69%)</td>
</tr>
<tr>
<td>Romênia</td>
<td>2</td>
<td>5</td>
<td>27 (35%)</td>
</tr>
<tr>
<td>Ucrânia</td>
<td>3</td>
<td>0</td>
<td>2 (14%)</td>
</tr>
<tr>
<td>Moldávia</td>
<td>1</td>
<td>0</td>
<td>2 (14%)</td>
</tr>
<tr>
<td>Bulgária</td>
<td>2</td>
<td>0</td>
<td>2 (14%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>9</td>
<td>7</td>
<td>10 (77%)</td>
</tr>
</tbody>
</table>

G2 diverged from the other groups with lower level of education and higher rates of overweight/obesity

Both G2 and G3 had worse metabolic control than G1. Higher rate of excessive weight gain was verified in G2, with the lower rate belonging to G3.

There was no statistically significant difference between groups concerning need of pharmacologic therapy or type (insulin/metformin).

Considering ultrasound measures, G2 had nearly twice the cases of EW and AC above 90th centile compared to G1, although did not reach statistically significance.

Cesarean was more frequent in G2 and G3.

G2 had more neonatal comorbidities associated, mainly hyperbilirubinemia requiring phototherapy

conclusions

Metabolic control in Asian and Black women with GDM were more difficult to achieve than in Caucasians, with subsequent worse maternal/fetal outcomes, such as higher need of cesarean, as stated in literature.

Black women tend to accumulate several risk factors which should be targeted with counseling and undoubtedly benefiting of a multidisciplinary approach, especially overweight/obesity.

Asian ethnicity confirms to be an important risk factor with more pregnant women having poor metabolic control in spite of adequacy of other factors (maternal weight gain, hypertension, ultrasound measures).

Lifestyle counseling applies to all pregnant women and may need to be adjusted to different cultures with different feeding habits, specially since these populations are particularly vulnerable to GDM.