Letters to the Editor

Obesity and Insulin-Like Growth Factor-I in African Americans and Whites

To the Editors: We were surprised by the results reported by Henderson et al. (1) showing a different relationship between body mass index (BMI) and insulin-like growth factor-I (IGF-I) for African Americans and Whites. They found essentially no relationship between BMI and IGF-I for African Americans but a clear decline in IGF-I levels with BMI for Whites. We measured IGF-I in plasma collected from 981 premenopausal women ages 35 to 49 years who had been randomly selected from the membership of a large urban health plan in Washington, District of Columbia (576 African Americans and 405 Whites). Measurement of IGF-I was by extraction using RIA kits from Nichols Institute Diagnostics. On average, African Americans have lower IGF-I than Whites [162 ng/mL (SE, 2.5) compared with 171 ng/mL (SE, 2.9)], but means for each BMI category are nearly identical for the two ethnic groups (Table 1). Regression analyses show that age-adjusted BMI (modeled continuously) is strongly and inversely related to IGF-I in both ethnic groups, and the β coefficients for BMI are nearly identical [African Americans: −2.4 (SE, 0.29); Whites: −2.5 (SE, 0.42)].

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Table 1. Unadjusted mean IGF-I level with SE for each category of BMI by ethnic group

<table>
<thead>
<tr>
<th>BMI</th>
<th>African American</th>
<th>White</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean IGF-I, ng/mL (SE)</td>
</tr>
<tr>
<td>&lt;25.0</td>
<td>144</td>
<td>181 (5.3)</td>
</tr>
<tr>
<td>25.0-29.9</td>
<td>176</td>
<td>174 (4.0)</td>
</tr>
<tr>
<td>30.0-34.9</td>
<td>114</td>
<td>160 (5.3)</td>
</tr>
<tr>
<td>&gt;35.0</td>
<td>142</td>
<td>129 (4.5)</td>
</tr>
</tbody>
</table>

Reference


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