Iodine Deficiency Disorder (IDD) in Burie and Womberma Districts, West Gojam, Ethiopia

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Abstract
Burie and Womberma districts are two of the endemic goiter areas in the country. The etiology of goiter in these areas is not fully studied so far. A cross-sectional, two-stage random sampling (sub-district and village) was used to select children aged 6-12 years and their biological mothers. The study revealed a total goiter prevalence rate of 54% and 30.1% in children and their biological mothers respectively. There are no goitrogenic foods such as cassava, however, goitrogenic chemicals such as Dichloro diphenyl trichloroethane (DDT) and 2, 4-Dichlorophenoxyacetic acid (2, 4-D) were widely used. In order to reverse the problem, immediate and sustainable distribution of iodated salt/oil capsule, prohibition of direct application of pesticides on foods and awareness creation on adverse effects of IDD and benefits of iodine nutrition is highly recommended.

Method
Cross-sectional study that used a two-stage random sampling (sub-district and village) was used to select children aged 6-12 years and their biological mothers from 10 randomly selected villages in each of the districts.
The assessment was conducted using palpation of thyroid size, urinary iodine level determination, household level interview and Focus Group Discussion (FGD).

Results

Table 1. Total Goiter rate of children by sex (N = 513)

<table>
<thead>
<tr>
<th>Sex</th>
<th>Visible</th>
<th>Palpable</th>
<th>Goiter rate, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>11.3</td>
<td>34.4</td>
<td>45.7 P =</td>
</tr>
<tr>
<td>Female</td>
<td>21.6</td>
<td>38.7</td>
<td>60.3 0.001</td>
</tr>
<tr>
<td>Total</td>
<td>17.5</td>
<td>37.0</td>
<td>54.5</td>
</tr>
</tbody>
</table>

Conclusions
Dietary iodine deficiency is a major problem in the districts.
There are no goitrogenic foods, however, goitrogenic chemicals such as Dichloro diphenyl trichloroethane (DDT) and 2, 4-Dichlorophenoxyacetic acid (2, 4-D) were widely used

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