Introduction

- Excessive dietary salt intake is one of the main risk factors for the development of cardiovascular diseases by raising blood pressure. 
- Noncommunicable diseases kill around 41 million (71%) people each year and among them, high salt intake alone is responsible for 4.1 million deaths. 
- The addition of extra salt during the meal is a common scenario in Bangladesh having 18-26% hypertensive patients. 
- In Bangladesh, the status of dietary salt consumption is >17g/day which is far more than WHO recommended level (<5g/day). 

Objective

To estimate the dietary salt intake from urinary sodium excretion based on both the 24-h urine and spot urine collection methods in the Bangladeshi population.

Methods

- Descriptive type of cross-sectional study. 
- The study was done in an urban area of Dhaka city and a rural area of Matlab, the north sub-district of Dhaka. 
- Information on sociodemographic characteristics, salt intake habits was collected by a questionnaire and BMI was measured in a standardized way. Blood pressure was measured using digital devices. 
- 24-hour and spot urine excretion of sodium samples were collected. 
- Inclusion criteria: Adult patients aged between 40-59 years of either gender. 
- Exclusion criteria: People with kidney disease, heart failure, or on diuretics.

Result

Table 1: Distribution of mean age, BMI, blood pressure among respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>N=227</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>46.0 ± (6.2)</td>
<td></td>
</tr>
<tr>
<td>BMI (Kg/m²)</td>
<td>24.0 ± (4.5)</td>
<td></td>
</tr>
<tr>
<td>SBP (mmHg)</td>
<td>120.0 ± (18.2)</td>
<td></td>
</tr>
<tr>
<td>DBP (mmHg)</td>
<td>78.6 ± (11.7)</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Salt consumption status

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt g/day estimated from 24-hours urine Na</td>
<td>10.0</td>
<td>9.3-10.6</td>
<td>10.8</td>
</tr>
<tr>
<td>Salt g/day estimated from spot urine by</td>
<td>8.5</td>
<td>8.2-8.8</td>
<td>8.6</td>
</tr>
<tr>
<td>Tanka equation</td>
<td>11.4</td>
<td>10.8-12.0</td>
<td>11.6</td>
</tr>
<tr>
<td>Garawali equation</td>
<td>8.8</td>
<td>8.6-9.0</td>
<td>9.1</td>
</tr>
</tbody>
</table>

Conclusion

The average daily salt intake in Bangladeshi adults was higher than the recommended intake level of 5g/day by the World Health Organization. Reducing salt consumption will be an important strategy to prevent the risk of the development of hypertension.

Recommendations

It is important to generate on an urgent basis a national policy regarding reducing dietary salt intake to avert high blood pressure. Raising campaign on building nationwide awareness against the addition of table salt during meals.

References


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