Hypertension – the Silent Killer, Awareness of Risk Factors and Complications in Rohilkhand Region

Anoop Kumar1, Abhishek Dwivedi2, Ankit Kumar Chaturvdi3, Rakesh Kumar4

INTRODUCTION

Hypertension is one of the leading cause of global burden of disease. The incidence of hypertension is increasing every year in India and all over world. Hypertension is the largest and most important risk factor for cardiovascular and cerebrovascular diseases which are leading causes of death around the globe and is growing in prevalence but poorly controlled virtually every where. It is currently the leading risk resulting in considerable death and disability worldwide and accounted for 9.4 million deaths and 7 per cent of disability adjusted life years (DALYs) in 2010.1

It is predicted that there will be 2032 hypertensive in India by year 2015. 25-30% adults in urban and 15-18% in rural population is suffering from hypertension. Awareness in rural area is 10-11% and urban 25-30%. In India overall prevalence of hypertension is 29.8%. In rural (27.6%) and urban (33.8%). Hypertension awareness, treatment and control status is low, with only half of urban and a quarter of the rural hypertensive individuals being aware of its presence. It has been seen that only one in five person is on treatment and less than 5% are controlled. Rural location is an important determinant of poor hypertension awareness, treatment and control. Rural location is an important determinant of poor hypertension awareness, treatment and control.

Evidence shows that lowering and controlling blood pressure has health benefits. For instance, 10 mmHg reduction of systolic blood pressure is associated with 22% and 41% reduction in coronary heart disease and stroke, respectively. In the same way prevention of different risk factors of hypertension contributed to reduction in cardiometabolic mortality. Data on prevalence, awareness, risk factors, treatment and control are necessary for planning and implementing health strategies.2-4

This study was conducted to determine prevalence, risk factors, awareness, treatment and control of hypertension in Rohilkhand region.

MATERIAL AND METHODS

This study was carried on patient suspected of hypertension attending the medicine OPD at Rohilkhand Medical College and Hospital. The hypertensive patients, who attended the Department of Medicine during June 2015 to May 2016, were included in the study. Out 480 patients 280 were recruited by a systematic random sampling, after obtaining their consents. The study was approved by the Institutional Ethics Committee. A standardized questionnaire with details pertaining to their sociodemographic profiles, anthropometry.

Complications

Heart- left ventricular hypertrophy /enlargement, heart failure
Brain-stroke, transient ischemic attack, dementia
Kidney – kidney failure
Arteries – atherosclerosis leading to heart attack or myocardial infarction and angina.
Eye – retinopathy

1Professor, 2Junior Resident, 3Junior Resident, 4Junior Resident, Department of Medicine, Rohilkhand Medical College And Hospital, Bareilly, India

Corresponding author: Abhishek Dwivedi, G-Block, Room No-27, Rohilkhand Medical College and Hospital, Bareilly -243006, India

How to cite this article: Anoop Kumar, Abhishek Dwivedi, Ankit Kumar Chaturvdi, Rakesh Kumar. Hypertension – the silent killer, awareness of risk factors and complications in Rohilkhand Region. International Journal of Contemporary Medical Research 2018;5(3):C35-C37.
C36

Table-1: Prevalence of hypertension in adults, India

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Year 2000, % population</th>
<th>Year 2005, % population</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>8.5</td>
<td>8.5</td>
</tr>
<tr>
<td>30-39</td>
<td>14.8</td>
<td>14.9</td>
</tr>
<tr>
<td>40-49</td>
<td>24.8</td>
<td>24.9</td>
</tr>
<tr>
<td>50-59</td>
<td>32.6</td>
<td>32.7</td>
</tr>
<tr>
<td>60-69</td>
<td>39.9</td>
<td>39.9</td>
</tr>
<tr>
<td>&gt;70</td>
<td>51</td>
<td>51</td>
</tr>
<tr>
<td>Average</td>
<td>28.60</td>
<td>28.65</td>
</tr>
</tbody>
</table>

Table-2: Risk factor

<table>
<thead>
<tr>
<th>Modifiable</th>
<th>Non modifiable</th>
</tr>
</thead>
<tbody>
<tr>
<td>High blood pressure</td>
<td>Family history</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>Gender</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Age</td>
</tr>
<tr>
<td>Diet</td>
<td>Race</td>
</tr>
<tr>
<td>Being overweight</td>
<td></td>
</tr>
<tr>
<td>Lack of exercise</td>
<td></td>
</tr>
<tr>
<td>Smoking, alcohol intake, stress</td>
<td></td>
</tr>
</tbody>
</table>

Figure-1: Extent of awareness, treatment and control of high blood pressure by age

Figure-2: Organs involved in hypertension

Figure-3: Hypertension – cv risk factors in elderly

DISCUSSION

India is a developing country going through rapid demographic and epidemiological transition. In such transition nutrition plays a key role. This cross sectional study identified a high prevalence of hypertension in females (61%). The reason of high prevalence in females could be stress, obesity and lack of physical activity. The difference of prevalence observed between the present study and other studies with respect to hypertension could be due to social and cultural differences, dietary and lifestyle factors and also the age span as well as research methodology used.

In our study prevalence of hypertension in found higher in age less than 55 years of age which is not consistent with other studies. The reason for this difference in age based prevalence could be increasing incidence of stress and sedentary life style in young individuals.

Low literacy level was associated with hypertension. The higher education level was negatively correlated to hypertension in present study. We speculate that it could be due to the reason that higher education imparts better knowledge and information about hypertension and subsequently those with higher education had a healthier lifestyle.

The study showed that obesity measured by BMI is a modifiable risk factor to develop hypertension. There was positive relation observed between increasing BMI and increase rate of hypertension, which was consistent with other studies. The reason for this positive relation between obesity and hypertension could be that increased weight increases cardiac output and increases peripheral resistance of arterioles.

Hypertension is a readily treatable risk factor for most common causes of morbidity and mortality in stroke, ischaemic heart disease, renal insufficiency and dementia. It has been suggested that the burden of stroke and ischaemic heart disease may be several times higher in hypertensive subjects in our study. In this study it has been found that...
hypertension increases the risk of cardiovascular diseases in elderly population.

**CONCLUSION**

Current study found that majority of the patients were aware of their condition. The level of awareness in our study was higher when compared with other studies. From the above findings, it can be inferred that there is a gap in hypertension awareness, treatment, and control in the study population inviting urgent public health intervention particularly targeting the population at risk, including younger population.

**REFERENCES**