TO STUDY KNOWLEDGE ATTITUDE AND PRACTICE OF NON-PHARMACOLOGICAL MEASURES TO CONTROL HYPERTENSION IN GERIATRIC POPULATION.


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Abstract:

There is an increase in prevalence of hypertension all over the world as well as India. Hypertension affects almost all body organs and systems. Hypertension can be managed by using non-pharmacological measures as well. Objective of this study was to assess knowledge, attitude and practice of non-pharmacological measures to control hypertension in geriatric persons. A total of 50 patients were interviewed. Their demographic details and responses to the questions were noted in the questionnaire.

About half of the study population was suffering from hypertension. Knowledge and practice of salt intake to control hypertension was satisfactory. But knowledge about correct level of blood pressure was lacking in 70% of study population. Knowledge about weight reduction, regular exercise, fruit intake and hypertension was poor. About half of the study population said that blood pressure can be controlled using drugs alone i.e. they were not aware of non-pharmacological measures.

Introduction:

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) classifies hypertension as:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Systolic Blood Pressure (mm Hg)</th>
<th>Diastolic Blood Pressure (mm Hg)</th>
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<tr>
<td>Normal</td>
<td>&lt;120</td>
<td>&lt; 80</td>
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</table>
Globally, the overall prevalence of raised blood pressure in adults aged 25 and over was around 40% in 2008. The number of people with hypertension rose from 600 million in 1980 to nearly 1 billion in 2008. The prevalence is significantly higher in geriatric population. Worldwide, raised blood pressure is estimated to cause 7.5 million deaths, about 12.8% of the total of all annual deaths. This accounts for 57 million DALY (disability adjusted life years) or 3.7% of total DALYs. Raised blood pressure is a major risk factor for coronary heart disease and ischaemic as well as haemorrhagic stroke. Blood pressure levels have been shown to be positively and progressively related to the risk for stroke and coronary heart disease. In some age groups, the risk of cardiovascular disease doubles for each incremental increase of 20/10 mmHg of blood pressure, starting as low as 115/75 mmHg. In addition to coronary heart diseases and stroke, complications of raised blood pressure include heart failure, peripheral vascular disease, renal impairment, retinal haemorrhage and visual impairment.\(^2\)

Treating high systolic blood pressure and diastolic blood pressure so they are below 140/90 mmHg is associated with a reduction in cardiovascular complications. Blood pressure can be managed with drugs as well as non-pharmacological measures which consist of exercise, weight reduction, salt restriction, eating fruits and vegetables, etc. Non-pharmacological measures play an important role in management of hypertension. The present study was done to assess knowledge, attitude and practice of non-pharmacological measures to control hypertension.

**Objective:**

To assess knowledge attitude and practice of non-pharmacological measures to control hypertension.

**Materials and methods:**

A Questionnaire was prepared consisting of 10 questions. Questions assessed knowledge, attitude and practice of the persons about non-pharmacological measures to control hypertension.

Sample Size: 50 persons

Study Site: Civil Hospital OPD

Study type: Single centered, cross-sectional, questionnaire based study.
Inclusion criteria:

1. Persons >55 years of age of either gender.
2. Those willing to participate.
3. Those giving consent.

Persons not willing to participate and/or not giving consent were excluded from the study. Blood pressure was measured in all the interviewed candidates.

Data was analyzed using appropriate statistical tests.

Results:

A total of 50 persons were administered the questionnaire. Mean age of the population was 66.7 years. Sample consisted of 35 males and 15 females. History of smoking was positive in 24% of the population interviewed, while history of tobacco consumption was positive in 22% of the population. Blood pressure was higher than normal in 68% of the people interviewed.

Out of 50 people interviewed, 48% said they were suffering from hypertension, 6% were suffering from diabetes mellitus and 4% were suffering from coronary heart disease.
About 76% of respondents said that walking has a correlation with hypertension but about 67% of patients of hypertension said they practiced walking as a measure to control hypertension.

Only 15 of the total respondents were aware of the normal values of blood pressure.
About 82% of respondents said that blood pressure should be monitored regularly and about 62% of hypertensives used to measure their blood pressure regularly.

About 54% of all respondents said that there is a direct co-relation between blood pressure and salt intake.

Values represent number of people in each group

Only 58% of hypertensives said that they have reduced salt intake to control hypertension.
About 42% of respondents were not aware whether salt intake be reduced in patient of hypertension or not.

Only 22% of respondents said that body weight has a co-relation with hypertension.

Values represent number of people in each group

Only 29% of hypertensives said that body weight should be maintained to control hypertension.

Only 36% of respondents were aware that pickles and papad contain high content of salt. Only 32% of respondents said that fruit consumption is related to blood pressure. Only 50% of hypertensives said that they take fruits in good amount.

Out of all, 86% of the respondents said that smoking and tobacco consumption should be reduced in patient of hypertension.

About 22% of all respondents said that blood pressure can be controlled with drugs alone.
Discussion:

There is an increase in the prevalence of hypertension in past years\(^2\). Hypertension affects a lot of body systems and organs. Hypertension can be controlled with drugs along with some non-pharmacological measures. The present study assessed knowledge attitude and practice of certain non-pharmacological measures to control hypertension in geriatric patients. About half of the study population was suffering from hypertension. Knowledge regarding walking as a measure to control hypertension was satisfactory. Majority of hypertensives (67%) did practice it as well. Majority of population was not aware of normal level of blood pressure. Half of the population was aware of co-relation between salt intake and blood pressure\(^3,4,5\). Majority of population did not know about co-relation between blood pressure and body weight (78%)\(^6,7\). Majority of population was not aware that foods like pickles and papad contained high levels of salt. Only a minority of patients (30%) gave correct co-relation between blood pressure and fruit consumption. Majority of patient was aware that a person of hypertension should be advised to stop smoking and tobacco consumption. Salt intake has a direct co-relation to blood pressure. Diet rich in fruits also helps in reducing blood pressure. Weight reduction can also aid in decreasing of blood pressure. Physical activity further reduces blood pressure and this is independent of reduction in body weight\(^8,9\). Abstinence from tobacco in any form also reduces blood pressure.

### EFFECTS OF LIFESTYLE MODIFICATION ON BLOOD PRESSURE

<table>
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<tr>
<th>Type</th>
<th>Description</th>
<th>Blood Pressure Effect</th>
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<tbody>
<tr>
<td>Weight reduction</td>
<td>Target body mass index 18.5-24.9</td>
<td>5-20 mmHg decrease for every 10 kg weight</td>
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Adoption of above mentioned non-pharmacological measures e.g. salt restriction, physical exercise, weight reduction, consumption of fruits etc. can significantly reduce the requirement of drug therapy in a large number of hypertensives. Inclusion of DASH diet plans and life style modifications can play a key role in management of hypertension\textsuperscript{10}.

**Conclusion:**

While knowledge and practice regarding salt intake, tobacco consumption remains satisfactory, but regarding body weight, fruit intake and correct levels of hypertension remains poor in the study group. But further large scale studies need to be undertaken to know about correct picture about knowledge of hypertension.

**References :**


