



## HYPERTENSION; SILENT KILLER

Dr. Nasim Ilyas<sup>1</sup>, Kashif Rahim<sup>2</sup>, Azka Waqar<sup>3</sup>

1. Assist Prof Biochemistry  
Poonch Medical College,  
Rawalakot.
2. Senior Lecturer  
Rawal Institute of Health Sciences,  
Islamabad.
3. M.Phil Student  
Quaid-e-Azam University,  
Islamabad.

**Correspondence Address:**

Dr. Nasim Ilyas  
1. Assist Prof Biochemistry  
Poonch Medical College, Rawalakot.  
Biochemistry.iimct@gmail.com

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**ABSTRACT...** Hypertension is a common term to define a state of raised blood pressure, and the raised blood pressure is 140 mm Hg mean systolic blood pressure of and mean diastolic blood pressure of at least 90 mm Hg. **Objectives:** To assess awareness about Hypertension among patients attending Medical OPD at THQ Hospital Hassan Abdal. **Materials and Methods:** A total of 150 male, female patients belonging to both rural and urban areas attending Medical Out Patient Department at THQ Hospital Hassan Abdal using a self constructed mixed questionnaire (In English and Urdu). **Results:** Following findings were observed among patients attending THQ hospital, Hassan Abdal: Family history of HTN was found to be 49% and 26% was unaware of family history of HTN. 33% found to have diabetes, 38% were unaware of having or not. 29.3% found to have HTN, 48.6% were unaware of having HTN or not. 34% of hypertensive patients showed compliance to the anti-hypertensive treatment while (66%) showed non-compliance. 60.6%, 78%, 62%, 74%, 68% considered the obesity, lack of exercise, cigarette smoking, anxiety and high cholesterol respectively as causative factor of HTN. Excessive intake of salt was considered by 56% as causative factor of HTN. 29% considered diabetes Mellitus as causative factor of HTN. 42%, 31%, 46% and 34% considered the cardiac disease, renal failure, brain hemorrhage and loss vision respectively as complication of HTN. Stroke was considered complication by (54%). 55%, 65%, 53% and 58% considered the regular exercise reduced salt intake, no smoking and keeping weight under-Control respectively as preventive measures of HTN. Less than half of the respondents considered frequent use of vegetables, excessive intake of sweets, as the preventive measures of HTN. **Conclusions:** The assessment of awareness about Hypertension among population of various areas can be beneficial in effective planning for disease prevention and control.

**Key words:** Awareness, Out Patient Department and Hypertension. Non communicable disease.

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### INTRODUCTION

Hypertension is a common term to define a state of raised blood pressure, and the raised blood pressure is 140 mm Hg mean systolic blood pressure of and mean diastolic blood pressure of at least 90 mm Hg<sup>1</sup>. According to a report of world health organization hypertension is ranked third as a factor for disability-adjusted life years. Hypertension as a non-communicable disease imposes a double burden on the economy of developing countries already facing problems of infectious diseases<sup>2-3</sup>. Hypertension is the major cause of morbidity and mortality for a large proportion of coronary heart diseases<sup>2</sup>. According to the survey of National Health, in Pakistan every one in three individuals over the age of 45 years is suffering from hypertension<sup>4</sup>.

Talking worldwide, 1/4<sup>th</sup> of the world's adult population is suffering from hypertension, and it is expected to increase up to 29% by 2025. In economically developed nations the absolute prevalence of hypertension is 37.3% in comparison with developing nations that is 22.9%<sup>5</sup>. As an estimation the number of individuals with hypertension in the economically developing countries will approximate 1.17 billion by 2025, representing almost 3/4<sup>th</sup> of the world's hypertensive population<sup>6,7</sup>.

The geographical difference also affects the level of awareness, as there is much higher level in the developed countries as compared to the under-developed countries<sup>8,9</sup>. The prevalence of

hypertension is found to be higher in the urban areas as compared to the rural areas. Adherence of the disease treatment was found to be higher in the urban male and female population<sup>5,10</sup>. Much higher prevalence of HTN was noted in males as compared to the females in almost all parts of the world<sup>5</sup>.

However in certain areas there was variation in the level of awareness among male and female population such that higher among males as compared to female or vice versa. According to research conducted in US reported that level of awareness sufficiently increased among older individuals<sup>11-14</sup>. Hypertension control program requires periodic national surveys in order to provide significant information.

## SUBJECTS AND METHODS

### Setting

Study was carried out at medical OPD at THQ Hospital, Hassan Abdal.

### Study design

Cross-sectional Survey.

### Study period

Three months from 1<sup>st</sup> April to 30<sup>th</sup> June.

### Sample size

150 subjects from THQ Hospital, Hassan Abdal.

### Sampling Technique

Convenient Sampling.

### Data Collection

A self constructed mixed questionnaire (In English and Urdu). Questionnaire is attached as Annexure "A".

### Data analysis

Through SPSS version 19.

## ETHICAL CONSIDERATION

Informed written consent was obtained before the start of interview, from each subject.

## RESULTS

Data of patients attending OPD at THQ hospital Hassan Abdal, responding towards family history of hypertension are shown in table IV.1.1.

Type of responses	Yes	No	Don't know
	74	37	39
Percentage	49.3	24.7	26

**Table I.1 Family History of Hypertension – THQ Hospital Hassan Abdal**

Data of patients attending OPD at THQ hospital Hassan Abdal, responding about having Diabetes Mellitus are shown in table I.2.

Type of responses	Yes	No	Don't know
	50	43	57
Percentage	33.3	28.7	38

**Table I.2 Awareness about having Diabetes Mellitus – THQ Hospital Hassan Abdal**

Data of patients attending OPD at THQ hospital Hassan Abdal, responding about having hypertension are shown in table I.3.

Type of responses	Yes	No	Don't know
	44	33	73
Percentage	29.3	22	48.7

**Table I.3 Awareness about having Hypertension – THQ Hospital Hassan Abdal**

Data of hypertensive patients attending OPD at THQ hospital Hassan Abdal, responding towards adherence to anti hypertensive treatment are shown in table I.4.

Type of responses	Yes	No
	35	9
Percentage	34.1	65.9

**Table I.4 Adherence to Anti-Hypertensive Treatment – THQ Hospital Hassan Abdal**

Data of patients attending OPD at THQ hospital Hassan Abdal, responding towards Possible Causes of hypertension are shown in table I.5.

Causes	Type of responses					
	Yes	Percentage	No	Percentage	Don't know	Percentage
Obesity	91	60.7	30	20	29	19.3
Lack of Exercise	117	78	9	6	24	16
Cigarette smoking	93	62	40	26.7	17	11.3
Use of fruits	31	20.7	95	63.3	24	16
Excess of salt in diet	85	56.7	33	22	32	21.3
Decreased intake of mutton	32	21.3	112	74.7	19	12.7
Anxiety	111	74	20	13.3	19	12.7
High Cholesterol level	97	64.7	39	26	14	9.3
Diabetes Mellitus	29	19.3	59	39.3	62	41.3

Table I.5 Possible Causes of HTN – THQ Hospital Hassan Abdal

Data of patients attending OPD at THQ hospital Hassan Abdal, responding towards Possible

Complications of hypertension are shown in table IV.1.6.

Complications	Type of responses					
	Yes	Percentage	No	Percentage	Don't know	Percentage
Cardiac diseases	63	42	65	43.3	22	14.7
Renal Failure	47	31.3	30	20	73	48.7
Ulcer	33	22	75	50	42	28
Diabetes Mellitus	59	39.3	44	29.3	47	31.3
Stroke	69	46	35	23.3	46	30.7
Brain Hemorrhage	82	54.7	22	14.7	46	30.7
Cancer	32	21.3	44	29.3	74	49.3
Loss of vision	51	34	49	32.7	50	33.3

Table IV.1.6 Possible Complications of HTN – THQ Hospital Hassan Abdal

Data of patients attending OPD at THQ hospital Hassan Abdal, responding towards Possible

Preventive measures of hypertension are shown in table IV.1.7.

Preventive Measures	Type of responses					
	Yes	Percentage	No	Percentage	Don't know	Percentage
Regular exercise	83	55.3	29	19.3	38	25.3
Reduced salt intake	98	65.3	20	13.3	32	21.3
No smoking	80	53.3	45	30	25	16.7
Frequent use of vegetables	64	42.7	31	20.7	55	36.7
Excess intake of sweets	74	49.3	39	26	37	24.7
Keeping weight under Control	88	58.7	29	19.3	33	22

Table IV.1.7 Possible Prevention of HTN – THQ Hospital Hassan Abdal

## DISCUSSION

There is an estimation about causalities by HTN that it currently kills nine million people every year. This risk can be reduced and hypertension can be prevented. Controlling HTN is far less costly, and far safer for patients, than the treatment cost of the complications of uncontrolled HTN like cardiac bypass surgery and dialysis<sup>15</sup>. A roadmap for prevention and control of non-communicable diseases has been developed by the World Health Organization named as "Global Plan of Action, for 2013-2020"<sup>16-17</sup>.

Following findings were observed among patients attending THQ hospital at Hassan Abdal:

Family history of hypertension was found to 49% and 26% of the patients were unaware of family history of hypertension. 33% of patients found to have diabetes, 38% of the patients were unaware of having or not. 29.3% of patients found to have HTN, 48.6% of the patients were unaware of having HTN or not. 34% of hypertensive patients showed compliance to the anti-hypertensive treatment while a large majority (66%) showed non-compliance. It was found that hypertension was prevalent at the rate which was higher than observed in Pakistan National Surveys. This is in consistence with other studies showing low detection of hypertension<sup>13</sup>.

According to the collected data 60.6%, 78%, 62%, 74%, 68% considered the obesity, lack of exercise, cigarette smoking, anxiety and high cholesterol respectively as causative factor of hypertension. Excessive intake of salt was considered by 56% as causative factor of hypertension. Only 29% considered diabetes Mellitus as causative factor of hypertension.

Awareness will help in molding the modifiable risk factors in themselves and in those around them, as besides age, race, gender and family history, all the other risk factors are modifiable. It was very reassuring to see that the participants of our study were well aware of stress, excessive salt intake and obesity as risk factors of hypertension. But there was poor awareness with regards to uncontrolled diabetes mellitus.

42%, 31%, 46% and 34% considered the cardiac disease, renal failure, brain hemorrhage and loss vision respectively as complication of hypertension. The stroke was the only complication which was considered by more than half of the respondents (54%). A significant percentage of respondent were unaware of complication and selected don't know response as complication of hypertension.

This observed poor level of awareness on complications of hypertension requires encouragement of educating people with hypertension in order to achieve better control of the disease. A poor level of unawareness has been reported by other researchers also<sup>18</sup>.

55%, 65%, 53% and 58% considered the regular exercise reduced salt intake, no smoking and keeping weight under-Control respectively as preventive measures of hypertension. Less than half of the respondents considered frequent use of vegetables, excessive intake of sweets, as preventive measures of hypertension.

Relatives of hypertensive patients experience the disease in their family members and learn about it more. Compliance to medications was higher in those with higher awareness scores. This has been reported by many previous studies and further highlights the importance and benefits of increasing awareness<sup>19-20</sup>.

This study had some limitations. It was conducted on selected group of persons, so there is a possibility of selection bias.

## RECOMMENDATIONS

High blood pressure can be controlled if population takes these steps:

- Maintain a healthy weight.
- Moderate physical activity on most days of the week.
- Follow a healthy eating plan, which includes foods low in sodium and containing fruits.
- Stop smoking,
- Compliance with prescribed medication for hypertension

## CONCLUSIONS

It is thus imperative to formulate priorities and design public health interventions to increase public awareness of the warning signs and risk factors of Non Communicable Diseases and provide them information to adopt and maintain healthy lifestyle.

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"Silence is argument carried out by other means."

Ernesto "Che" Guevara (1928-1967)



#### AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. N.	Author-s Full Name	Contribution to the paper	Author-s Signature
1	Nasim Ilyas	Significant	<i>nasim</i>
2	Kashif Rahim	Significant	<i>KRahim</i>
3	Azka Waqar	Significant	<i>azka</i>