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Attitude, knowledge and perception of hypertensive retinopathy in hypertensive population in tertiary care centre in kathua region

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Abstract
Objective: Hypertension is a major factor responsible for cardiovascular diseases worldwide. Undiagnosed and uncontrolled htn still remains a major public health problem despite of increasing awareness, treatment and its control. This study includes the attitude, knowledge and practice concerning hypertension in adult population in kathua region.
Methodology: This study was carried our between june 2022 to january 2022 at tertiary health care in kathua region. It includes a descriptive study on knowledge, attitude and perception of hypertensive patients on antihypertensive medications. Results: This study includes total of 750 hypertensive patients compising 263 females (35.06 %) and 332 males (44.2 %). 43.3 % population was literate. More than two third population (78%) was aware of complications of HTN as they were informed by health workers. Almost 97% population have checked their blood pressure during past 6 months. Conclusion: The studied population were well aware of the importance of regular follow up and complications such as hypertensive retinopathy, chronic kidney disease, peripheral vascular diseases etc. It was concluded that forgetfulness was the cause of poor drug compliance.

Keywords: Hypertensive retinopathy, cardiovascular diseases, hypertensive

Introduction

Hypertension affects nearly 26 percent of the adult population worldwide. It is a systemic disorder which can affect vital organs such as brain, kidney, heart and eyes. It is a major risk factor for cardiovascular diseases around the world [1-4]. It is a risk factor responsible for coronary heart diseases and stroke responsible for millions of comboridities across the world. Hypertension can commonly affect the ocular structures and can cause subconjunctival haemorrhage, hypertensive retinopathy, vitreous haemorrhage, central retinal artery occlusion, central retinal vein occlusion, cranial nerve palsies and ischemic optic neuropathy. Regular fundus examinations and blood pressure monitoring is required to prevent hypertension related ocular complications. Hypertensive retinopathy is a common complication seen in hypertensives. Duration of hypertension, age, smoking, hyperlipidemia and high plasma endothelin levels are the risk factors associated with hypertension. This study will be undertaken to analyze the awareness level of hypertension eye disease in general public. Cardiovascular diseases are responsible for 17 million deaths a year, nearly one third of total worldwide [5]. It affects the population in low and middle class with complications such as stroke, kidney disease, premature disability and peripheral vascular disease [6-8]. HTN presents aa a frequent occurring condition that is amenable to control through lifestyle changes as well as pharmacological means [9]. The recommended lifestyle changes includes salt restriction, moderation of alcohol consumption, high consumption of fruits and vegetables and weight loss and physical exercises regularly. A KAP survey includes knowledge, attitude and practice. KAP survey explores the characteristic traits in knowledge, attitude and behaviours about health and the idea each person has of disease. The only problem in this was lack of knowledge about disease [10]. This study includes assessment of the knowledge, attitude and perception of hypertension patients.

Material and Methods

It is a cross sectional study done on 200 patients aged 30 to 80 years attending the Eye opd in GMC Kathua within 6 months. Written informed consent was taken from all the participants. A simple questionnaire was prepared. The questionnaire included:

1. Are you a hypertensive?
2. When were u diagnosed hypertension?
3. Are you aware of hypertensive retinopathy?
4. Did your physician advised you for regular ophthalmological check ups?
5. Are you aware of the treatment for hypertensive retinopathy?

Inclusion criteria

1. Patient aged 30- 80 years.
2. Patient diagnosed with hypertension taking antihypertensive
3. Medications for greater than 6 months.

Exclusion criteria

1. Patient age < 30 years and > 80 years.
2. Pateint with other comorbidities.
3. Patients who are pregnant.

A well formed, face-to-face, interviewer-administered questionnaire was administered in the local language by well-trained health care professionals with previous experience in conducting such studies.

Comprehensive sociodemographic information of the participants was gathered at the beginning of the study. Three options, "yes," "no" followed by "uncertain," were offered to the participants. Other close-ended questions especially related to questions assessing practice were organized to offer three to seven response options. If a participant had ever smoked, then they were categorized as smokers, and options were "yes" or "never." Similar options were offered to those who had imbibed alcohol as well.

Results

A total of 1230 patients were taken in the the study. It included 750 hypertensive patients. 44.26 % patients fall in 60- 69 age group and 35.06 % in 70 to 79 age group. It compises 263 females (35.06 %) and 332 males (44.2 %). 43.3 % population was literate and 56.6% hypertensive patients were illiterate. More than two third population (78%) was aware of complications of HTN as they were informed by health workers. Almost 97% population have checked their blood pressure during past 6 months.

Table 1: AGE distribution of patients

Age	No of study population (N= 1230)	No of study population with hypertension (N = 750)
60-69 years	650	332
70-79 ears	370	263
>80 years	210	155

Table 2: Gender distribution

Gender	No of study population (N= 1230)	No of study population with hypertension (N= 750)
Male	554	332
Female	676	263

Table 3: Literacy status of patients.

Literacy status	No of study population (N= 1230)	No of study population with hypertension (N= 750)
Illeterate	670	425
Literate	560	325

Table 4: Pattern of hypertensive retinopathy among subjects.

Grade of retinopathy	No of patients
Grade 1	66
Grade 2	21
Grade 3	8
Grade 4	4
Total no of patients	96

Table 5: Distribution of various factors associated with hypertensive retinopathy.

Factors		No hypertensiv e retinopathy	Hypertensive retinopathy	P value
Age in years	60-69	291	41	
	years 70-79	211	52	
	years >80 years	131	24	
Gender	Males	261	47	
	Females	372	62	
Literacy	Literates	211	61	
	Illiterates	422	56	
Diabetics	No	532	98	
	Yes	101	19	
BMI (kg/ m2)	<24.9	319	71	
	>25	314	56	
Smoking	No	371	54	
	Yes	262	63	
Alchol	No	282	48	
	Yes	351	69	
Pseudophakia	No	521	101	
	Yes	112	16	

Table 6: Awareness of hypertension ocular effects among patients with hypertension.

Awareness of hypertension ocular effects	Number (N)	(%)
Awareness of hypertension affecting eyes	98	13.06%
Awareness of hypertension affecting retina	51	6.8%
Awareness of hypertension affecting vision	63	8.4%

Discussion

We conducted a study to assess the current status of knowledge, attitude, and practice about HTN in adult hypertensive patients at our centre. Gobally men have a slightly higher prevalence of HTN than women [11]. Literacy rate is also higher in men globally, and our study also showed the same results [12]. This study have found that, of 50–60% of the study population, the place of the first diagnosis of HTN and of regular follow-up was a tertiary care hospital. Uncomplicated hypertensive patients can be managed at primary or secondary care hospitals. There may be due to developing demand for specialized care and or unavailability of proper referral systems [13]. Attention must be paid when implementing measures to improve health infrastructure in the future. Our patients were well aware of the importance of regular follow-up and knowledgeable about the complications related to HTN because 97 % of patients had checked their BP within the last 12 months with regular 1–3 monthly interval checkups, and over 78% of the patients were aware of the complications related to HTN. We asked patients about advice received from a doctor to change their way of life to lower BP. Almost 80% of

patients reported that a doctor had indeed explained the matter to them. To achieve the maximum coverage of patients, we may have to use the sources to disseminate HTN information including mass media as it had been identified as a major source of information [14]. Fifty-three percent of the study population had blood relatives with HTN. (is may signify the genetic predisposition of HTN. For early recognition of HTN, we may need to have national level awareness enhancing programs to recognize the at-risk group. To ascertain their attitude towards adherence to taking all prescribed medications, we posed questions about their drug compliance. Almost 75% of patients had optimum drug compliance.

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