Original Article

Awareness Regarding Assessment of Hypertensive Patients Among General Practitioners

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Abstract

Background: To assess awareness regarding assessment of hypertensive patients among general practitioners. **Subjects and Methods:** 140 general practitioners were questioned regarding technique of measurement of blood pressure, diagnosis of prehypertension and hypertension, evaluations of newly diagnosed hypertensive patients etc. **Results:** Out of 140 subjects, 80 (57.1%) were males and 60 (42.9%) females. Technique of cuff placement was covering 2/3 of arm at heart level was used by 82% GP. They adopted preferred position of patient by 54%, supine by 36% and standing and supine by 10%. Number of readings of blood pressure was used was 1 by 15%, 2 by 35% and 3 by 50%. The difference was significant (P< 0.05). Common symptoms reported were by GP were dizziness by 42%, morning headache by 65%, palpitation by 58%, easy fatigability by 52% and impotence by 43%. The difference was significant (P< 0.05). **Conclusion:** Most of the GPs are well aware and had sufficient knowledge about the initial lab investigations, symptoms and techniques of measuring blood pressure and diagnosing hypertension.

Keywords: Awareness, Hypertension, general practitioners.

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Introduction

High blood pressure is an important risk factor for cardiovascular disease and causes 7.5 million deaths per year annually. Hypertension and its complications are a global concern, due to its high prevalence especially as it often remains undiagnosed.[1] In India, the prevalence of hypertension in the last six decades has increased from 2% to 25% among urban residents and from 2% to 15% among the rural residents.[1]

Among the known risk factors for non-communicable diseases, hypertension after high Body Mass Index (BMI), unhealthy diet, and high blood glucose is the fourth risk factor, which has increased by 6.7% from 2005 to 2016.[2] Almost all hypertension-related complications are preventable. Lifestyle modification helps decrease blood pressure and prevents hypertension, and antihypertensive medication can effectively reduce the cardiovascular events attributed to hypertension. Adherence to medication and improving lifestyle in people with hypertension are known to decrease hospitalization, the cost associated with outpatient care, and cardiovascular mortality.[3]

Primary care physicians play an extremely important role as the first level of contact for individuals, screening family as well as the community in the national health system. Literature review revealed several weaknesses in previous research regarding evaluation of doctors' adherence to hypertension guidelines.[4,5] Literature has shown that across the globe the awareness and adherence of general practitioners and primary care physicians especially with regards to guidelines may have certain lacunae.[6] Adhering to goals and recommendations has the potential of contributing substantially to decreasing the national health and financial burden.[7,8] The present study was conducted to assess awareness regarding assessment of hypertensive patients among general practitioners.

Subjects and Methods

We enrolled one hundred forty general practitioners (GP) who willingly joined our study. All gave their valid written consent. Ethical approval was obtained before initiating study.

Data such as name, age, gender etc. was recorded. The study comprised of a questionnaire and data such as technique of measurement of blood pressure, diagnosis of prehypertension and hypertension, assessment of newly diagnosed hypertensive patients was recorded. All GP were provided with this questionnaire and their responses were recorded. Results thus obtained were subjected to statistical analysis using Mann Whitney U test. P value less than 0.05 was considered significant.

Results

Out of 140 subjects, 80 (57.1%) were males and 60 (42.9%) females [Table 1].

Table 1: Subjects distribution

Total- 140		
Gender	**Males**	**Females**
Number	80 (57.1%)	60 (42.9%)

Table 2: Method used for blood pressure measurement

Technique	Method	Percentage	P value
Cuff placement	Covering 2/3 of arm at heart level	82%	-
Preferred position of patient	Sitting	54%	0.05
	Supine	36%	
	Standing and supine	10%	
No. of readings of blood pressure	1	15%	0.02
	2	35%	
	3	50%	

Technique of cuff placement was covering 2/3 of arm at heart level was used by 82% GP. They adopted preferred position of patient by 54%, supine by 36% and standing and supine by 10%. Number of readings of blood pressure was used was 1 by 15%, 2 by 35% and 3 by 50%. The difference was significant (P< 0.05) [Table 2].
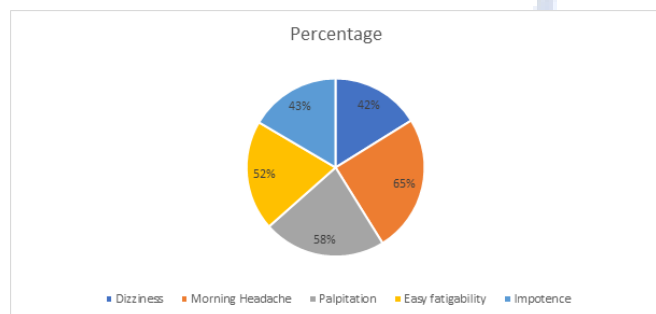

Figure 1: Evaluation of symptoms by GP

Common symptoms reported were by GP were dizziness by 42%, morning headache by 65%, palpitation by 58%, easy fatigability by 52% and impotence by 43%. The difference was significant (P< 0.05) [Figure 1].
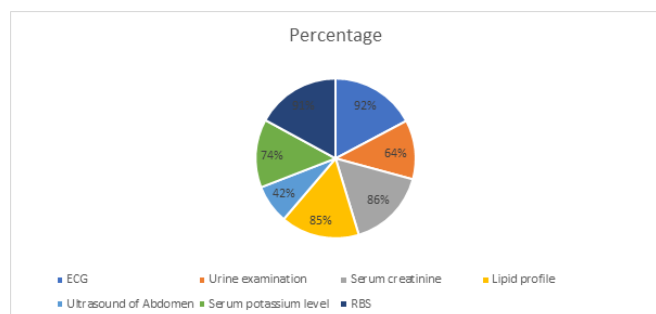

Figure 2: Investigations used by GP for diagnosing new hypertensive patients

Investigation preferred by GP were ECG by 92%, urine examination by 64%, serum creatinine by 86%, lipid profile

by 85%, ultrasound of abdomen by 42%, serum potassium level by 74% and RBS by 91%. The difference was significant (P< 0.05) [Figure 2].

Discussion

As hypertension occurs in isolation in less than 20% cases and is almost always accompanied by other risk factors, addressing comorbidities is an important consideration while measuring doctors' adherence with hypertension guidelines. GP' attitudes towards guidelines play a significant role in their implementation in clinical practice.[9,10] GP' intentions to use guidelines can be predicted from their attitudes towards guidelines, which are influenced by many factors, such as their knowledge, past clinical experience, beliefs about guidelines, outcome expectations, peers' opinions, and guidelines characteristics.[11,12] The present study was conducted to assess awareness regarding assessment of hypertensive patients among general practitioners.

There were 80 (57.1%) were males and 60 (42.9%) females. Rajati et al,[13] found that prevalence of hypertension was 15.7%. Among hypertensive patients, awareness, treatment, and control of hypertension were 80.7%, 73.2%, and 53.3%, respectively. In multivariate analysis, significant associations were found between awareness and female sex, older age, being married rather than being single, literacy, living in rural areas, having family history, and comorbidities, with a higher probability for those who had both diabetes and dyslipidaemia. Being married, living in rural areas, being ex-smokers, having less physical activity and individuals who had diabetes and dyslipidaemia had higher odds of receiving treatment. Being female had a statistically significant association with the control of hypertension.

Our results depicted that technique of cuff placement was covering 2/3 of arm at heart level was used by 82% GP. They adopted preferred position of patient by 54%, supine by 36% and standing and supine by 10%. Number of readings of blood pressure was used was 1 by 15%, 2 by 35% and 3 by 50%. Mirzaei et al,[14] estimated awareness, treated, and controlled hypertensive and relevant predictors in an adult Iranian population. The prevalence of hypertension was 37.3%, and the prevalence of pre-hypertension was 46.4%. 49.7% of people with hypertension were aware of their disease, and 71.5% of them were using antihypertensive drugs prescribed by physicians. Blood pressure was controlled in 38.9% of the treated patients. It was found that older age, female sex, and history of diabetes mellitus were positively associated with higher awareness. High physical activity, tobacco smoking, and diabetes are the only predictors of treated high blood pressure. Younger age, female sex, and higher education were determinants of controlled hypertension. Having health insurance was significantly correlated with awareness and control of hypertension.

Our results depicted that common symptom reported were by GP were dizziness by 42%, morning headache by 65%, palpitation by 58%, easy fatigability by 52% and impotence by 43%. The 2010 study in Yazd showed that the rate of

awareness for hypertension was 43.7% of the patients. 77.1% of them were treated, and only 12.4%, who treated, had controlled blood pressure.[15] Deshpande et al,[16] in their study among 80 general practitioners found that twenty percent of GPs were not applying BP cuff properly for BP measurement. Only 18% and 16.6 % could diagnose isolated diastolic hypertension (IDH) and isolated systolic hypertension respectively (ISH) and 21% and 29% would have considered treatment of IDH and ISH respectively.48% consider treating pre-hypertension using non-pharmacological measures. Only 21% use thiazide diuretics for uncomplicated HTN and 50% use beta-blockers in coronary artery disease patients.

Conclusion

Results of present study demonstrated that most of the GPs are well aware and had sufficient knowledge about the initial lab investigations, symptoms and techniques of measuring blood pressure and diagnosing hypertension.

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