ORIGINAL RESEARCH

Assessment of awareness towards hypertension management in general practitioners

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ABSTRACT

Background: Hypertension is a common chronic disease worldwide and a major risk factor for cardiovascular disease. The present study was conducted to assess awareness towards hypertension management in general practitioners.

Materials & Methods: 125 general practitioners of both genders were enrolled. A questionnaire was prepared and was distributed among all participants and response was recorded.

Results: Out of 125 subjects, males were 65 and females were 60. The number of readings of blood pressure was 1 by 15%, 2 by 40% and 3 by 35%. Cuff placement covering 2/3 of arm at heart level was recommended by 78%. Preferred position of patient was sitting by 48%, supine by 32% and standing and supine by 20%. The difference was significant (P< 0.05). Investigation preferred by GP were RBS by 85%, ECG by 96%, ultrasound of abdomen by 42%, serum creatinine by 85%, lipid profile by 87%, serum potassium level by 70% and urine examination by 67%. The difference was significant (P< 0.05).

Conclusion: Most of the general practitionershad sufficient awareness regarding techniques and symptoms of hypertension.

Key words: hypertension, general practitioners, ultrasound

INTRODUCTION

Hypertension is a common chronic disease worldwide and a major risk factor for cardiovascular disease.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. High blood pressure is an important risk factor for cardiovascular disease and causes 7.5 million deaths per year.[1]

Low awareness of hypertension prevention among physicians may be an important factor relating to increasing prevalence of hypertension. General practitioners provide comprehensive healthcare for people of all ages with all diseases.[2] They function in the same way as family physicians (FPs), primary care physicians or general practitioners (GPs) in other countries. However, primary care is provided by general practitioners with different levels of education; they can either be graduates of a medical college with no postgraduate training, or they can be doctors with postgraduate training and specialization.[3] Although patients seek help from general practitioners for acute illness, patients report doubting the quality of general practitioners' care for chronic illness and have more confidence in hospital

clinics, which are perceived to have more qualified physicians and more modern equipment and procedures.Some of the studies which had evaluated doctors prescribing practices against the guidelines failed to address comorbidities.[4]The present study was conducted to assess awareness towards hypertension management ingeneral practitioners.

MATERIALS & METHODS

The present study was conducted among 125 general practitionersof both genders. All were enrolled after obtaining their written consent.

Data such as name, age, gender etc. was recorded. A questionnaire was prepared which comprised of information regarding technique of measurement of blood pressure, diagnosis of prehypertension and hypertension, evaluations of newly diagnosed hypertensive patients, role of non-pharmacological measures to treat prehypertension and hypertension, level of blood pressure to start pharmacological treatment and selection of antihypertensive agents in different clinical conditions.It was distributed among all participants and response was recorded. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Table I Distribution of participants

Total- 125		
Gender	**Males**	**Females**
Number	65	60

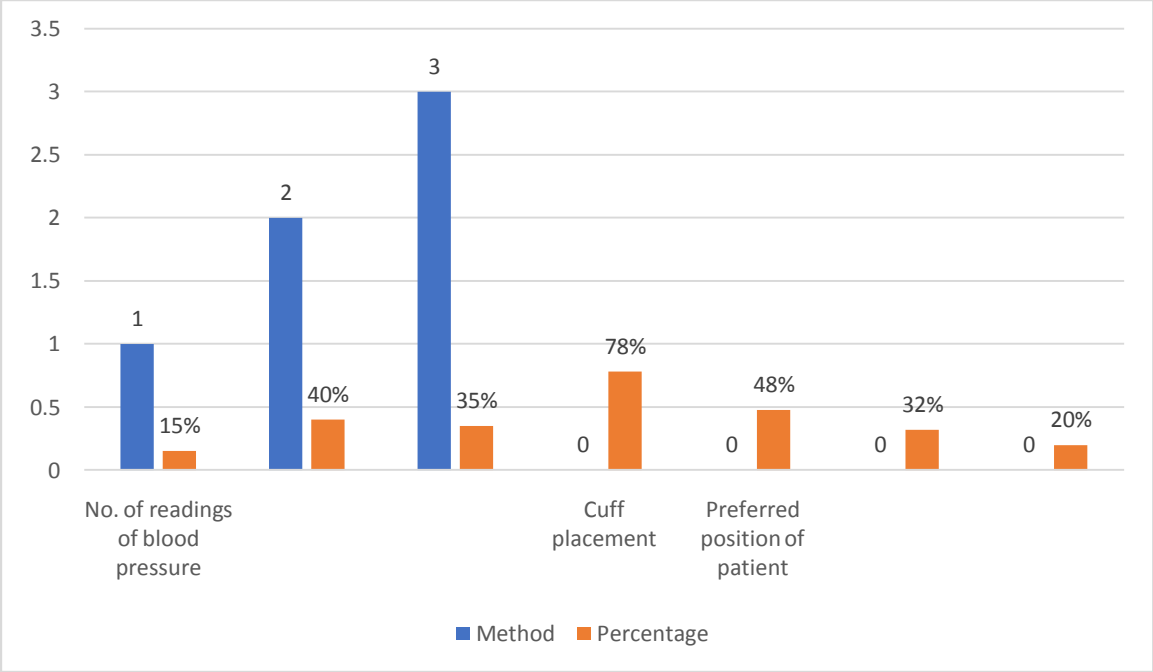
Table I shows that out of 125 subjects, males were 65 and females were 60.

Table II Method of blood pressure measurement

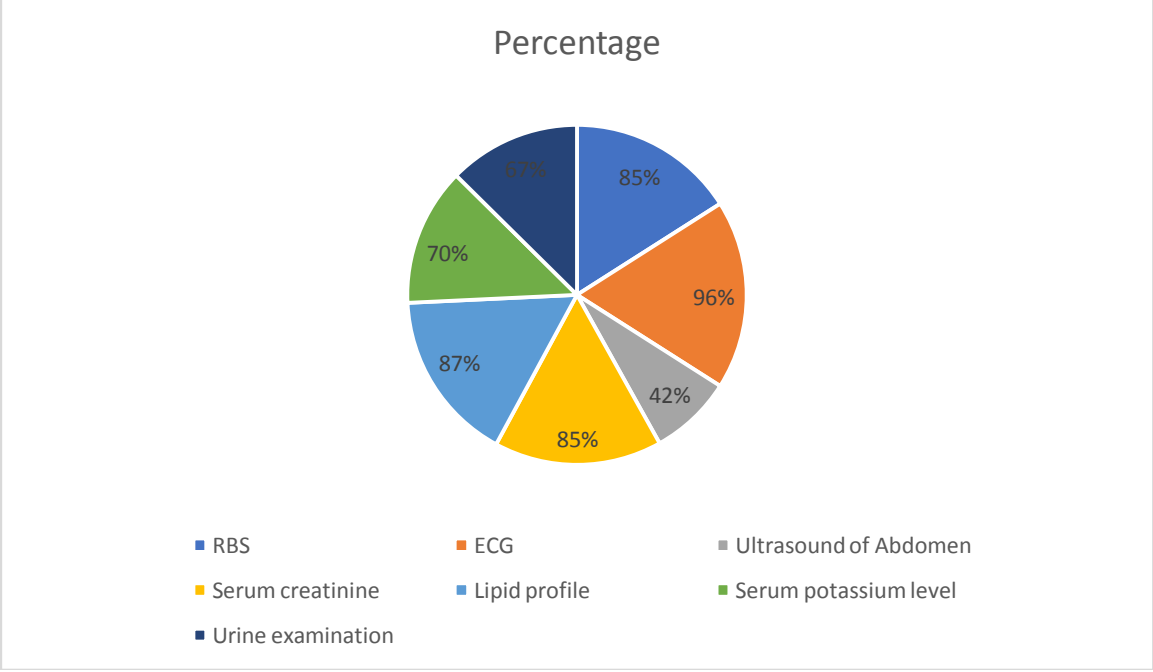
Technique	**Method**	**Percentage**	**P value**
No. of readings of blood pressure	1	15%	0.05
	2	40%	
	3	35%	
Cuff placement	Covering 2/3 of arm at heart level	78%	-
Preferred position of patient	Sitting	48%	0.04
	Supine	32%	
	Standing and supine	20%	

Table II, graph I shows that number of readings of blood pressure was 1 by 15%, 2 by 40% and 3 by 35%. Cuff placement covering 2/3 of arm at heart level was recommended by 78%. Preferred position of patient was sitting by 48%, supine by 32% and standing and supine by 20%. The difference was significant (P< 0.05).

Graph I Method of blood pressure measurement



Graph II Investigations for newly diagnosed hypertensive patients



Graph II shows that investigation preferred by GP were RBS by 85%, ECG by 96%, ultrasound of abdomen by 42%, serum creatinine by 85%, lipid profileby 87%, serum potassium level by 70% and urine examination by 67%. The difference was significant (P< 0.05).

DISCUSSION

Correct measurement and interpretation of the BP (BP) is essential in the diagnosis and management of HTN. Popular and commonly used auscultatory office BP measurement has major shortcomings. Surveys of mercury devices in clinical practices have shown that there are frequently mechanical defects, and physicians' rarely follow official guidelines for their use.[5]It establishes adults' target blood pressure as SBP/DPB < 140/90 mmHg in

uncomplicated hypertension; < 150/90 mmHg for adults > 65 years; and < 130/80 mmHg for those with diabetes, coronary heart disease or renal disease.[6] It also advises on antihypertensive drug use and emphasizes lifestyle modification such as sodium restriction, smling cessation, weight loss, reduced alcohol consumption and increased dietary potassium and physical activity as prevention and control measures.[7]The present study was conducted to assess awareness towards hypertension management ingeneral practitioners.

We found that out of 125 subjects, males were 65 and females were 60.The 2009 Canadian Hypertension Education Program published its comprehensive recommendations for hypertension prevention and management, which included specific lifestyle modifications to restrict dietary sodium, perform aerobic exercises, maintain healthy body weight and waist circumference; detailed dietary recommendations, alcohol limitations and stress management techniques were also included as well as recommended pharmacologic agents.[8] The National Clinical Guideline Centre in the UK updated its hypertension guidelines in 2011; it comprises evidence-based advice on the care and treatment of adults with primary hypertension, including new, updated diagnosis, antihypertensive drug treatment and monitoring. Most guidelines are updated annually.[9]

We found that number of readings of blood pressure was 1 by 15%, 2 by 40% and 3 by 35%. Cuff placement covering 2/3 of arm at heart level was recommended by 78%. Preferred position of patient was sitting by 48%, supine by 32% and standing and supine by 20%.Deshpande et al[10] conducted a cross- sectional survey in 80 general practitioners (GPs) of the western part of Vadodara city with the use of a questionnaire prepared from JNC-7 guidelines and standard medical books. Seventy- seven [97.55%] GPs completed the questionnaire and their responses were statistically analysed.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.

We observed that investigation preferred by GP were RBS by 85%, ECG by 96%, ultrasound of abdomen by 42%, serum creatinine by 85%, lipid profile by 87%, serum potassium level by 70% and urine examination by 67%. Chen et al[11] in their study a questionnaire survey was conducted among all general practitioners at five community health service centers selected by convenience sampling. A total of 160 questionnaires were distributed and 147 were returned (response rate 91.9%) The questionnaire included general information; 12 subjective questions on health promotion, education and training needs; and 19 objective questions in 5 domains (epidemiology, diagnosis, treatment, referral and community management) measuring knowledge of hypertension prevention and treatment.The major difficulties in health education practice for general practitioners were poor patient compliance (77.6%) and lack of medical consultation time (49.0%). The average accuracy rate of hypertension prevention knowledge was 49.2%, ranging from 10.5% to 94.7%. The factors associated with accuracy rate were physician's education level (medical university vs. professional school, $\beta = 13.3$, $P = 0.003$), and type of center (training base vs. community healthcare center, $\beta = 12.3$, $P < 0.0001$). Most physicians (87.8%) reported being willing to attend training courses regularly and the preferred frequency was once every $2 \sim 3$ months (53.5%). The preferred course was medical treatment of hypertension (82.3%) and the most favored training approach was expert lectures (80.3%).

CONCLUSION

Authors found that most of the general practitionershad sufficient awareness regarding techniques and symptoms of hypertension.

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