Original Research Paper

Medical Science

PREVALENCE OF DIABETES & HYPERTENSION AMONG RESPONDENTS IN TERTIARY CARE CENTRE IN MAHARASHTRA INDIA.

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ABSTRACT **Background:** As Diabetes Mellitus (DM) is one of the most challenging public health problems in 21st century. It currently affects over 366 million people worldwide and this figure is likely to double by 2030. It is important to know about the awareness level of a disease condition in a population, which plays a vital role in future development, early detection and prevention of disease[5]. Hypertension is becoming an important public health problem worldwide. A recent report on the global burden of hypertension indicates that nearly 1 billion adults (more than a quarter of the world's population) had hypertension in 2000, and this is predicted to increase to 1.56 billion by 2025[6].

Objective: to study the prevalence of Diabetes and hypertension in tertiary care hospital.

Method: The present cross sectional study was carried out General OPD, (Clinic) under the Community Medicine Department Government Medical College Akola during February 2019 to July 2019 2018 over a period of 6 months. All the respondent who were given consent were included in the study.

Result: A total of 329 study participants were enrolled for the study. Among them 66% were male. 14% were dietetic and --- hypertensive. Family history of diabetes were 21 % participants where as 20% were hypertensive.

Conclusion: Effective health education is needed to avoid complication of diabetes and hypertension. Majority of hypertensive subjects still remain undetected so camp based and house to house survey is needed for control and early detection of diseases.

KEYWORDS : Diabetes, Hypertension, History of Diabetes, Hypertension in Family.

INTRODUCTION :

Diabetes mellitus (DM) is one of the major fast growing non-communicable disease (NCD) and causes threats to global public health. Progression of diabetes in most cases results in chronic complications, which lowers patients' quality of life and increases their morbidity and mortality; it also leads to a great economic burden on our health systems[1]. Diabetes mellitus (DM) is a risk factor for cardiovascular and kidney disease. It has been associated with unhealthy lifestyle habits, including inappropriate nutrition,

lack of exercise, smoking, alcohol consumption, caffeine overuse, and improper sleeping habits[2]. Diabetes mellitus is rapidly gaining a potential epidemic state all over the world. In 2014, about 387 million people (8.3% prevalence and 46.3% undiagnosed) were suffering from diabetes mellitus globally, of which 75 million people are from southeast Asia (prevalence 8.3% and undiagnosed 52.8%), and it is projected to be 592 million by 2035[3]. Diabetes mellitus (DM) leads to alarming clinical, social, financial,and public health issues with devastating long-term effects on the well-being, affecting quality of life including neuropathy, retinopathy, nephropathy, dementia, and cognitive problems[4].

As Diabetes Mellitus (DM) is one of the most challenging public health problems in 21st century. It currently affects over 366 million people worldwide and this figure is likely to double by 2030. It is important to know about the awareness level of a disease condition in a population, which plays a vital role in future development, early detection and prevention of disease[5]. hypertension is becoming an important public health problem worldwide. A recent report on the global burden of hypertension indicates that nearly 1 billion adults (more than a quarter of the world's population) had hypertension in 2000, and this is predicted to increase to 1.56 billion by 2025[6].

MATERIAL AND METHOD :

The present cross sectional study was carried out General OPD, (Clinic) under the Community Medicine Department Government Medical College Akola during February 2019 to July 2019 2018 over a period of 6 months. All the respondent who were given consent were included in the study. All Respondents gave their verbal informed consent before administration of the questionnaires. A semi-structured Pretested questionnaire was used for data collection, one section was dedicated to socio-demographic such as age, gender, education (none, primary, secondary/high, or university), occupation worker, service, housewife(non-worker) while the other sections consisted questions related to knowledge about diabetes and family history. The questionnaire consisted of both open and close-ended items which were filled by direct face-to-face interview with all eligible participants.

Sr. No		Number(%)
1.	**Sex wise Distribution**	
	Male	218 (66.26)
	Female	111 (33.74)
	Total	329
	Age Groups	
	20-25	20 (6.7)
	26-30	40 (12.15)
	31-35	37 (11.24)
	36-40	40 (12.15)
	41-45	43 (13.6)
	46-50	33 (10.3)
	51-55	45 (13.67)
	56-60	22 (6.68)
	60 & above	49 (14.89)
	Total	329
3.	**Occupation of respondent**	
	Non worker	125 (38%)
	Service	63 (19.00)
	Laborers	99 (30%)
	Farmer	42 (13%)
	Total	329
4	**Education of respondent**	
	Illiterate	10 (3.%)
	Primary	113 (34.%)
	Secondary	169 (51.%)
	High school	4 (0.3%)
	Graduate	29 (8.%)
	Postgraduate	4 (0.3)
	Leaving Are	329
	Urban	204 (62.%)
	Rural	125 (38%)
5	**DM History in respondent**	
	Yes	45 (14%)
	No	284 (86.%)
6	**HT History in respondent**	
7	Yes	65 (20%)
	No	264 (80%)

8	DM History in Family	
	Yes	69 (21%)
	No	260 (79.%)
9	HT History in Family	
	Yes	63 (19%)
	No	266 (81%)

RESULT :

A total of 329 study participants were enrolled for the study. Among them,218 (66.26%) were male and 111(33.74%) were female respondent. Most of the respondent 49 (14.89%) was of age group more than 60 years. A higher proportion of the subject 204 (62%) resided in urban area. Most of them 169 (51%) had high secondary level of education while (8%) of them had graduate and (0.3%) post graduate level of education. Occupation wise most of the study subject were unemployed (38%). (14%)respondent were diabetic and 20% hypertensive. (21%) respondent had family history of diabetic and 19% were hypertensive.

DISCUSSION :

In the current study out of 329 participants we found the prevalence of diabetes 45 (14%) and hypertension 65 (20%). In a study conducted by Venugopal K and M. Z. Mohammed observed 25.6% hypertension in study conducted Vijayanagram[7]. Priya *et* observed hypertension in 42.7% of the patients[8]. V Mohtan, M deepa S Farooq, M Dutta R Depa reported 20% Prevalence of hypertension in Chennai Urban and rural area.[6] So our study similar to abvove sytud. In the present study overall prevalence of diabetes among the respondent were 45(14%) where as the study conducted by Chythra R Rao and Veena G Kamath reported overall prevalence of diabetis 16% in Karnataka[9].

Singh P. S et. al reported 35% of the diabetics were newly diagnosed during the course of study[10]. In a recent study 2017 in Aurangabad district, by Naval S, Mahajan S et.al an overall prevalence was 11.2% [11]. The prevalence of diabetes is similar to the study conducted by by Chythra R Rao and Veena G Kamath reported overall prevalence of diabetes 16% in Karnataka. In the present study overall prevalence of family history of diabetes was 69(21%) and 63(19%) respectively. The study conducted by Kondru et.al[5] reported 14% family history of diabetes. Nagar V, Pankaj Prasad, Arun Mitra, Saket Kale, Kirti Yadav Mukesh Shukla[1] reported 34(22.6%) of diabetic respondent this finding is similar to our study .

Limitation of the study:

limitation of this study are the assessment of diabetes and hypertension was done only on the basis of history this could have introduce recall bias. In order to prevent this error B.P Measurement by sphygmomanoter as per guideline, fasting blood sugar, post meal and Hba1C of these investigation required to do correct diagnosis.

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