

Prevalence of Risk Factors Associated with Hypertension Among Adult Hypertensive Patients Attending The Primary Health Care Center At Al-Leith City, KSA, Oct-Dec 2016.

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Abstract: This is a descriptive cross-sectional, institutional-based study. It aimed to assess the Prevalence of risk factors associated with hypertension among adult hypertensive patients attending the primary health care center at Al-Leith city, KSA. Interviewer – administered structured questionnaire was distributed to all hypertensive patients. This study showed that hypertension in Al-Leith city is more prevalent among males (53.9%) than females. The vast majority of them are married (78.9%). This study also revealed that hypertension is more prevalent among illiterates (53.1), as well as, it decreases with increasing level of education. There is also a high level of family history of hypertension among these patients (68.8%). Majority of them (60.9%) have associated diabetes mellitus with hypertension and only (12.5%) have also associated cardiovascular disease as well. Only (17.2%) of them are smokers. Most of these patients (68.75%) do not practice any regular physical exercise. High percentage of them their daily meal consist of fatty meat (64.1%). Obesity among these patients is (23.4%) and those who are overweight is (42.97%). Only (77.3%) of them are adherent to treatment.

Keywords: Hypertension, risk factors, obesity, illiteracy, Kingdom of Saudi Arabia.

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I. Introduction

Normal blood pressure is between 90/60 mmHg and 120/80 mmHg blood pressure between 120/80 mmHg and 139/89 mmHg is called pre-hypertension, and a blood pressure of 140/90 mmHg or above is considered high. ¹⁻⁴ An elevation of the systolic and/or diastolic blood pressure increases the risk of developing heart disease, kidney disease, hardening of the arteries, eye damage, and stroke. ^{1,5} These complications of hypertension are often referred to as end-organ damage because damage to these organs is the end result of chronic high blood pressure. Most of the time hypertensive people show no symptoms in the early stages, symptoms only manifest after end-organ damage. That is why hypertension is described by some clinicians as a 'silent killer'. ² Symptoms that may occur include chest pain, confusion, ear buzzing, irregular heartbeat, nosebleed, tiredness, headache and vision changes. ² These symptoms are usually a result of end-organ damage and the presentation depends on the organ that is affected. For this reason, the routine screening of symptomatic individuals is critical in early diagnosis, treatment and control of high blood pressure. Early diagnosis, treatment and optimum control of hypertension are keys to reducing morbidity and mortality of hypertension related illnesses. Although the list of causes of hypertension is endless, in more than 90 % of people with hypertension, the causes are not known and is defined as 'essential hypertension' (which means the cause of hypertension cannot be identified). ^{1,2,5} Prevention strategies such as promotion of physical activity, low salt diet (including regulation of salt content in processed food), cessation of smoking, moderation of alcohol consumption and monitoring and control of hypertension can be done at primary health Centre at reasonable cost compared to the inpatient management of stroke, myocardial infarction, dialysis in case of renal failure or other complications of hypertension. ¹ This stresses the common phrase 'treatment is better than cure/treatment'. Early diagnosis, treatment and strict control blood pressure in hypertensive individual is not only cost-effective but also has potential for great impact on the hypertension related morbidity and mortality ¹. For instance, it has been estimated that a 5 mmHg reduction of mean systolic blood pressure (SBP) in the population would result in a 14 percent overall reduction in mortality due to stroke, a 9 percent reduction in mortality due to coronary heart diseases (CHD), and a seven percent decrease in all-cause mortality.

II. Methods And Materials

2.1 Study design: This is a descriptive cross-sectional institutional-based study.

2.2 Study area: The primary health care center at Al-Leith town.

2.3 Study population: All hypertensive patients attending Al-Leith primary health care center during the period from Oct to Dec 2016.

2.4 Inclusion criteria: All hypertensive patients attending Al-Leith primary health care center during the period from Oct to Dec 2016.

2.5 Exclusion criteria: 1-All those who are severely ill patients. 2-Those who refuse to participate in the study. **Sampling:** Total coverage of all hypertensive patients attending at Al-Leith primary health care center during the period from Oct to Dec 2016, to exclude bias in selection as well as this will empower the study results in answering the question being addressed.

2.6 Data collection methods: 1 – Interviewer – administered structured questionnaire. 2 – Al-Leith primary health care center records documents and databases. 3 – Weighting scale. 4 – easuring tape.

2.7 Data analysis: Data will analyzed using SPSS statistical package and chi-square test will be used to measure the significance of the study results.

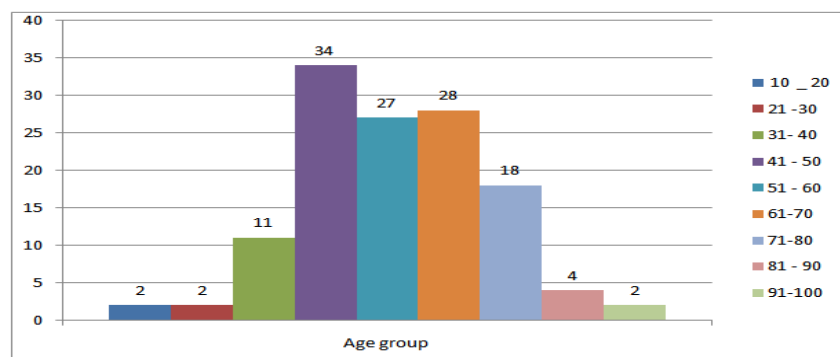
III. Results

Table 1: Showing the distribution of study population by gender, 2016(n=128)

Gender	Frequency	Percent
Male	69	53.9
Female	59	46.1
Total	128	100.0

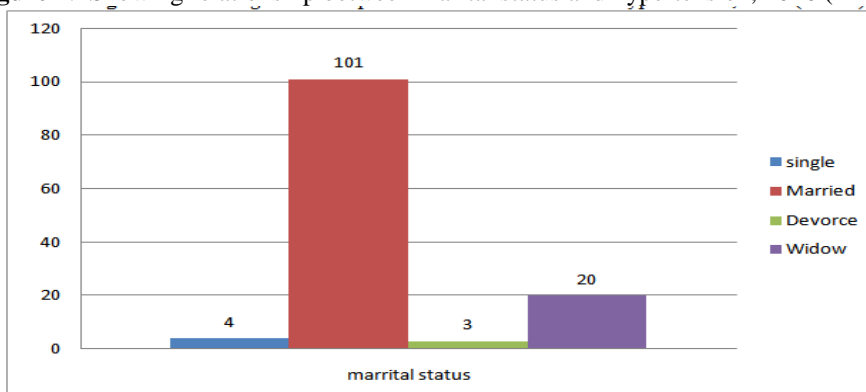
The total sample size in Al-lieth is 128 Hypertension is slightly more prevalent in males (53.9%) (n=69), than in females (46.1%) (n=59)

Figure 1: Showing the relationship between age and hypertension, 2016 (n=128)



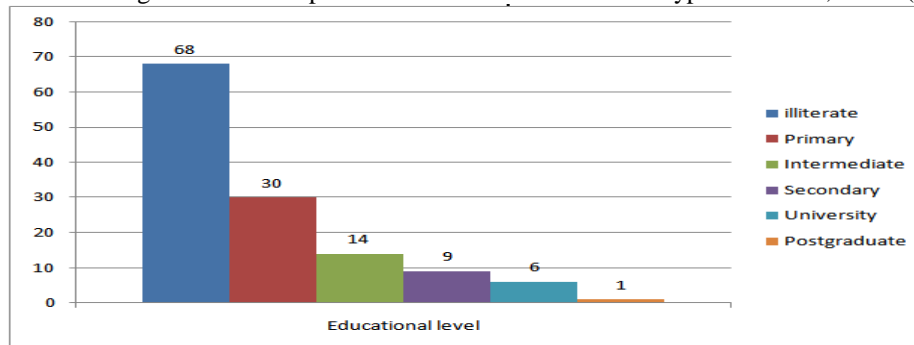
Hypertension is more prevalent at the age group 41-50 (26.6), and hypertension is less prevalent at age-groups 10-20years, 21-30years, 91-100 years respectively.

Figure 2: Showing relationship between marital status and hypertension, 2016 (n=128)



Hypertension more prevalent between married group (78.9%).

Figure 3: Showing the relationship between educational-level and hypertension, 2016. (n=128)



Hypertension more prevalent between illiterates (53.1%)

Table 2: Relationship between positive family history of hypertension and the development of hypertension among Al-lieth city population, 2016. (n=128).

Family history	Frequency	Percent
YES	88	68.8
NO	40	31.3
Total	128	100.0

68.8% of patients with hypertension are having positive family history of hypertension

Table 3: Showing the association of hypertension with other chronic diseases among Al-lieth city population, 2016. (n=128)

Disease	Frequency	Percent
Diabetes	78	60.9
Heart disease	16	12.5
Kidney disease	1	0.8
Thyroid	5	3.9
Free from chronic diseases	28	21.9
Total	128	100.0

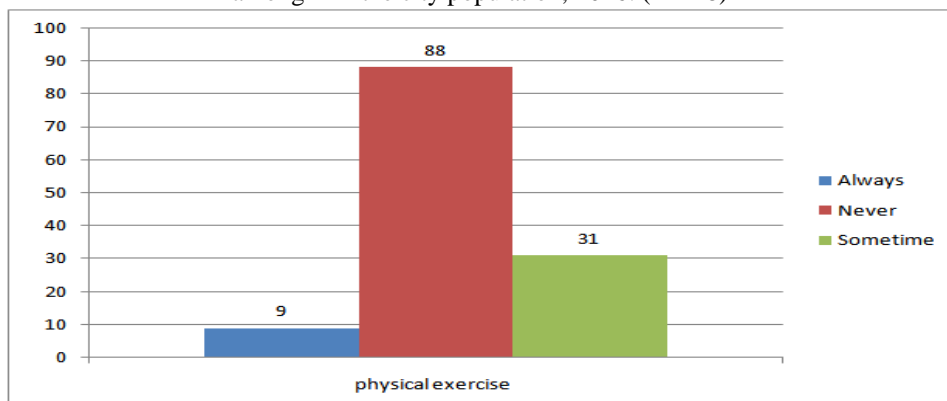
Diabetes is more prevalent among patients with hypertension (60%).

Table 4: Showing the association between hypertension and smoking habit among Al-lieth city population, 2016. (n=128)

	Frequency	Percent
Smoker	22	17.2
No smoker	97	75.8
Passive smoker	9	7.0
Total	128	100.0

Only 17.2% of patients are smokers (75.8 are non-smokers).

Figure 5: Showing the relationship between performing regular physical exercise and having hypertension among Al-lieth city population, 2016. (n=128)



There is strong relationship between performing regular physical exercise and hypertension among Al-Leith population (68.75% are not performing physical exercise).

Figure 6: Showing the relationship between certain types of diet with hypertension among Al-leith city population, 2016:

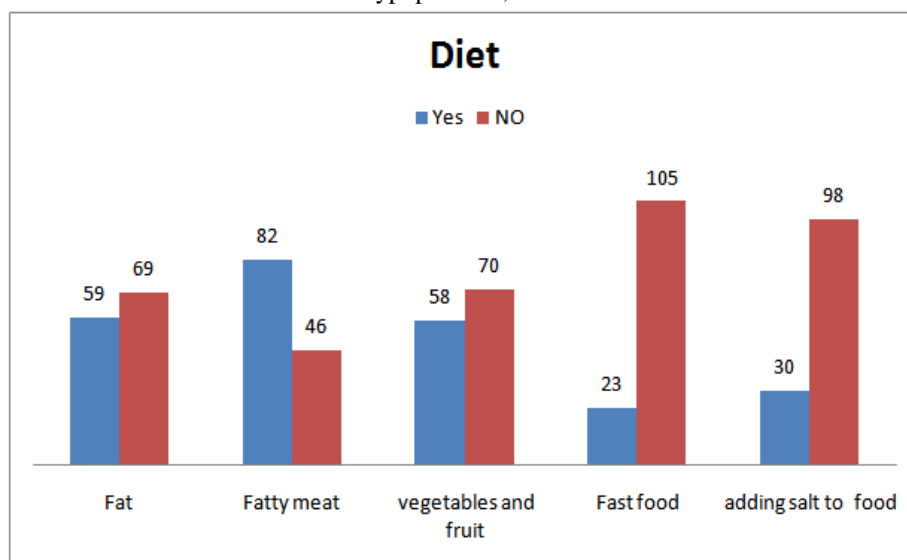
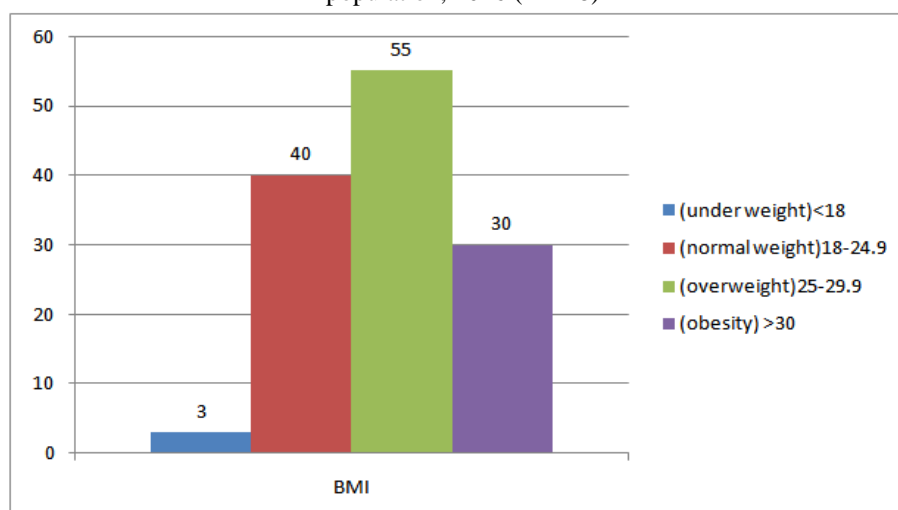


Table 5: Showing the compliance of hypertensive patients with treatment among Al-Leith city population, 2016 (n=128)

Regularity in the use of treatment	Frequency	Percent
Yes	99	77.3
No	29	22.7
Total	128	100.0

A considerable percentage (22.7%) of hypertensive patients are not taking treatment regularly.

Figure 7: showing the relationship between obesity and hypertension among Al-leith city population, 2016 (n=128)



IV. Discussion

The results of this study revealed that hypertension is more prevalent among males (53.9%) than females. Study done in KSA³⁷ also show that hypertension is more prevalent among males than females. A similar study done in Egypt³⁹ showed the opposite that hypertension is more prevalent among females (54.5%) than males. This study showed that hypertension is more prevalent among married persons (78.9%) than unmarried is. This is similar to a study done in KSA³⁷, showed that hypertension is more prevalent among

married persons, while it was found that hypertension in Egypt³⁹ is more prevalent among married persons (89.1%) too. Regarding educational level hypertension was found to be high among illiterates in Al- Leith (53.1%), this agrees with the study done in Egypt³⁹ where hypertension is (59.4%) among illiterates. Most of the patients at Al- Leith have high family history of hypertension (68.8%), also in Egypt³⁹ family history of hypertension was found to be even higher (74.4%). Also family history of hypertension was found to be (64.6%) high in Bangladesh³⁸. Hypertension at Al- Leith was found to be highly associated with diabetes mellitus (60.9%), while it was to be lower (39.6%) in Egypt³⁹. Smokers among Al- Leith hypertensive patients was found to be low (17.2%), while it was found to be high (76.2%) among hypertensive patients in Egypt³⁹. A majority of Al- Leith hypertensive patients was found to be physically inactive (68.75%), while it was found to be (55.5%) in Bangladesh³⁸. Obesity among Al- Leith hypertensive patients was found to be (23.4%), while it was found to be (45.3%) in Bangladesh³⁸. Overweight among Al- Leith hypertensive patients was found to be (42.97%), while it was found that (64.1%) of these patients are taking fatty meat on daily basis.

V. Conclusion

The current study concluded that hypertension is more prevalent among males (53.9%) than females, and the vast majority of them are married (78.9%). This study also revealed that hypertension is more prevalent among illiterates (53.1%), as well as, it decreases with increasing level of education. There is also a high level of family history of hypertension among these patients (68.8%), and the majority of them (60.9%) have associated diabetes mellitus with hypertension. Only (17.2%) of them are smokers. Most of these patients (68.75%) do not practice any regular physical exercise. High percentage of them their daily meal consist of fatty meat (64.1%). Obesity among these patients is (23.4%) and those who are overweight is (42.97%). A considerable percentage of them (22.7%) are not adherent to treatment.

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