

لتم اذ خالها الى المستودع الرقمى

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**Prevalence Of Poor Control Hypertensive In  
Atbara And Aldamer Locality  
from march to july 2018**

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الآية:

قال تعالى: (ففهمناها سليمان وكلا آتينا حكما وعلما وسخرنا مع  
داوود الجبال يسبحن والطير وكنا فاعلين (79))

صدق الله العظيم

*Deduction*

First of all we send our  
Greatest thanks to Allah '''

To our wonderful parents who learnt us how to  
be confident magnificent with values and loving  
for humanity and beauty  
to our teachers  
to our collages

## Acknowledge

Our great thanks to our supervisor

DR:ALwathig Yahia

To our parents and friends.

To staff they help us in primary health  
centers.

To every person gave us something to  
light our pathway, we thanks them for  
believing in us...

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**List of Abbreviations:**

SBP	Systolic blood pressure
BP	Blood pressure
ECG	Electric cardiac gram
HTN	hypertension

## Abstract

**Background:** - Uncontrol hypertension define as for patients with out diabetes, poor BP control was define as BP of  $\geq$  or equal 140/90mmHg and  $\geq$ 150/90 for the patients aged 80 years and more. For patients with diabetes, poor control was define as BP of  $\geq$ 140\80mmHg.

**General objective:-** To determine prevalence of un control hypertension in Atbara and Aldamer locality 2018 .

**Methodology** :Study designCross sectional study. Study setting:primary health centers. Data were be collected through prepared questionnaire for patient with hypertensive and by measure of blood pressure through sphygmomanometer.

**Result:-** This study conclude that prevalence of un control hypertension in Aldamaer and Atbara was 49% .

**Conclucion:-**

This study conclude that prevalence of un control hypertension in Aldamaer and Atbara was 49% the main factors of un control hypertension was don't exercise and don't take treatment.

**Recommendation:**

Study recommended improving life style.

Study recommended enhance public awareness about the disease and complication.

Study recommended providing health insurance for all strata of society.

Study recommended conducting awareness campaigns for blood pressure patients on the importance of follow-up and taking medicine.

Study recommended conducting awareness campaigns for blood pressure patients on the importance of exercise.

Study recommended conducting awareness campaigns for blood pressure patients on the effects of smoking.

## المستخلص

### خلفية:

تهدف هذه الدراسة التحليلية المستعرضة الى تقييم معدل إنتشار ضغط الدم الغير متحكم فيه ومضاعفاته فى ولاية نهر النيل بمحليتى عطبره والدامر خلال الفتره من (مارس\_ يوليو) 2018.

### الهدف:

معدل إنتشار ضغط الدم الغير متحكم فيه ومضاعفاته.

### جمع البيانات:

من خلال اعداد إستبيان لمرضى ضغط الدم.

### إدارة البيانات والنتيجة:

لغير متحكم فيه فى محليتى عطبره والدامر 49%. تم إدارة البيانات البيانات من خلال برنامج أكسل اسلوب العينة: سوف تقدم البيانات كجداول ورسوم بيانية.

# **Chapter one**

## (1-1)Introduction :-

Hypertension is high blood pressure . Blood pressure is the force of blood pushing against the walls of arteries as it flows through. Arteries are the blood vessels that carry oxygenated blood from the heart to the body tissues.

Hypertension also known as high or raised blood pressure, is a condition in which the blood vessels have persistently raised pressure . Blood is carried from the heart to all parts of the body in the vessels . Each time the heart beats ,it pumps blood into the vessels . Blood pressure is created by the force of blood pushing against the walls of blood vessels (arteries) as it is pumped by the heart . (1)

### Type Of Hypertension :-

-Essential hypertension (also called primary hypertension or idiopathic hypertension ) is the form of hypertension that by definition has no identifiable cause .it is the most common type of hypertension ,affecting 95% of hypertensive patients , hypertension can increase the risk of cerebral , cardiac , and renal events . Risk factor including :

-genetic variation and aging ,obesity ,salt ,and alcohol , renin, diabetes , and smoking , vitamin deficiency , lack of exercise .

-Secondary hypertension or (less Commonly ,Inessential hypertension ) it is much less common than the other type , called essential hypertension ,affecting only 5% of hypertensive patients .it has many different causes including endocrine diseases , kidney diseases , and tumors it also can be a side effect of many medication. Risk factor for having secondary hypertension:

- is having a medical condition that can cause high blood pressure, such as kidney , artery , heart , or endocrine system problem .

e of hypertension among Arab compared to people form the USA (28%)and sub Saharan African (27,6%)Awareness of hypertension was reported for 46%of studied and varied from 18%(Jordan) to 79,8 %(Syria ) The control rate varied from 56% (Tunisia) to 92%(Egypt and Syria.) The prevalence of hypertension was found to increase with age occurring more frequently in Arab women. (2)

### **(1-2) Research Problem:**

-increasing the prevalence of hypertension among adult in so increasing prevalence of complication due to hypertension.

-the prevalence of uncontrolled hypertension in Atbara & Aldamer locality was unknown.

### **(1-3) Research justification:**

Determine prevalence of un control hypertension to make secondary prevention. Hypertension is one of diseases that target by united nation to control and it one of sustainable developmental goal

### **(1-4) General objective**

1- To determine prevalence of un control hypertension in Atbara& Aldamer locality 2018 .

### **(1-5) Specific objectives**

- To determine prevalence of poorly controlled hypertension .
- To determine risk factor of un control hypertension.
- To determine complication of un controlled hypertensive.

# Chapter two

## (2-1)Literature Reviews:

Definition of hypertension:-Hypertension is sustained elevation in BP. In adults, hypertension exists when systolic blood pressure (SBP) above or equal 140 mmHg or diastolic pressure is above or equal 90 mmHg on each of two or more office visits.(6)

Types of hypertension:-Primary (essential): hypertension accounts for up to 95% of all cases of hypertension . Secondary: is elevated BP with a specific cause that often can be identified and corrected.(7)

## (2-2)Risk factors of hypertension:-

Age ,Alcohol, Cigarette smoking ,Diabetes mellitus ,Elevated serum lipids ,Excess dietary sodium, Gender ,Family history ,Obesity ,Race ,Lack of physical exercise.

Pathological back ground:-The hemodynamic hallmark of hypertension is persistently increased systemic vascular resistance.(8)

Diagnosis:-Clinical examination ,Serum electrolytes ,Blood glucose (fasting if possible),Serum cholesterol ,ECG for baseline and cardiac status.

Treatment:-Drugs used in treatment of hypertension include diuretics ,adrenergic(sympathetic) inhibitors, vasodilators , angiogenesis inhibitors ,and calcium channel blockers.(9)

Definition:-UN control hypertension define as for patients with out diabetes, poor BP control was define as BP of > or equal 140/90mmHg and >150/90 for the patients aged 80 years and more. For patients with diabetes, poor control was define as BP of >140\80mmHg.

Complication:-Hypertensive heart disease, Cerebrovascular disease, Peripheral vascular disease , Nephrosclerosis,Retinal damage.

Risk factor of UN control hypertension:  
Smoking, Obesity ,High salt intake, High cholesterol, Exercise.(10)

Prevalence of UN Controlled Hypertension:-  
Juan p study by high prevalence and poor control of hypertension at 2016 in Venezuelan .The study aim to estimate the prevalence of hypertension in five populations from three regions.The study was selected by multistage stratified random sampling from 1392 subject aged 20 or older .Through questionnaires The Study conduct that prevalence of un control hypertension was 31.3% it. Gonzalez –Rivas , Raul Jose Garcia Santiago ,et al. Conduct higher in men than women. (11)

Cheong AT,Sazlina SG et al. The study conduct by Poor blood pressure control and its associated factors among older people with hypertension

at 2015 in Malaysia .The study aim to determine state of blood pressure control and its associated factors among older people.The study was across sectional study. A total of 1107 patients were selected via systematic random sampling 441.From participation through prepare questionnaires Cheong AT , Sazlina SG , Tong SF ,et al .Conduct study by poor blood and interview.The study conduct that 51,7% from uncontrolled hypertension.(12)

Rashid AL Saadi, Sulaiman ALSukaili et al. The study Conduct by prevalence of uncontrolled hypertension in primary care at 2011 in Oman.The study aim to estimate the prevalence of uncontrolled hypertension among Omani hypertensive patients.Based on an assumption of 50% prevalence of uncontrolled HTN,total 3,459 were select systematic random by sample size 411hypertension patients .Through questionnaires.HTN is not adequately controlled in over 60% of treated patients.(13)

M.E.K Ahmed and I.B.El-Awad .conduct blood pressure control and target organ complication among hypertensive patients in Saudi Arabia 2001.This study determined the degree of BP control and the spectrum of target organ involvement among hypertensive patients .The study was cross sectional by sample size 203 The data were collected in structural flowchart .Men 53% women 47%.(14)

In Egypt Eman Yousif Awad ,Prof.Dr/Bassima Ezat Gwaied,et al ,conduct study by Compliance of hypertensive patients with treatment regimen and its effect on their quality of life at 2015.the study aimed to determine the compliance of hypertensive patient with treatment regimen and its effect on their quality of life.the study was cross sectional study by sample size 300.interview questionnaire.the study conducted that as regard the value of high blood pressure (49.3%,44.7%) respectively the reason (62.7%,72%) respectively controllable or not(69.%,70%) respectively continuation of treatment (58%,81.3%) respectevily and effectof weight reduction on hypertension (58.7%,68%) respectively.(15)

Tafadzwa Priscilla Goverwa,Nyasha Masuka et al. Uncontrolled hypertension among hypertensive patients on treatment in Zimbabwe 2012.The study aimed determined un controlled hypertension among hypertensive patients on treatment.Analytical cross-sectional was

conducted 354. Data was collected by An interviewer administered questionnaire. 67.2% independent risk factor for un controlled hypertension. (16)

In Kenya Isiaho Lillian Amugistsi, Ayieko A.O., et al conducted study Determinants of hypertension among adult hypertensive patients 2016. The study aimed to identify the determinants of hypertension complications among hypertensive patients in Kenya. Cross sectional descriptive design. Data was collected using structured questionnaires. Patients being in the age groups 40-59 years 47.5% and over 60 years 27.5%. (17)

Bekele Tesfaye, Dessalegn Haile, et al. Conduct study by Uncontrolled hypertension and associated factors among adult hypertensive patients in Ethiopia at 2018. The study aim to determine the prevalence of un controlled hypertension and associated factors among adult hypertensive patients. Institution based cross sectional study, total of 345 hypertensive patients were selected using systematic sampling technique. Data were collected using structured questionnaire through face to face exit interview and chart review. More than half 52% of the patients had uncontrolled hypertension. (18)

FAWZI ABABIKER, LAMIA A ELKHALIFA et al. The study conduct by Awareness of hypertension and factors associated with uncontrolled hypertension in Sudanese adults before five years. The aimed of the study was to determine the prevalence of un controlled HTN and the risk factor associated in Sudanese adults. Cross sectional study. the study population was group of 200 hypertensive patients selected randomly. Data were collected using structured questionnaires during interview. 46% male, 54% female. (19)

Risk factor of uncontrolled hypertension:-

Juan p . Gonzalez --Rivas , Raul Jose Garcia Santiago ,et al. Conduct study by high prevalence and poor control of hypertension at 2016 in Venezuelan . The study aim to estimate the prevalence of hypertension in five populations from three regions. The study was selected by multistage stratified random sampling from 1392 subject aged 20 or older. Through questionnaires The Study conducted that the risk factor was Diabetes and overweight. (20)

Cheong AT, Sazlina SG et al. The study conducted by Poor blood pressure control and its associated factors among older people with hypertension at 2015 in Malaysia. The study aim to determine state of blood pressure control and its associated factors among older people. The study was across sectional study. A total of 1107 patients were selected via systematic random sampling 441. From participation through prepare questionnaires Cheong AT, Sazlina SG, Tong SF, et al. Conduct study by poor blood and interview. The study conducted that the risk factor was lower education, use of three or more antihypertensive agents and obesity. (21)

Rashid AL Saadi, Sulaiman ALSukaili et al. The study Conduct by prevalence of uncontrolled hypertension in primary care at 2011 in Oman. The study aim to estimate the prevalence of uncontrolled hypertension among Omani hypertensive patients. Based on an assumption of 50% prevalence of uncontrolled HTN, total 3,459 were select systematic random by sample size 411 hypertension patients. Through questionnaires. The study conducted that the risk factor was obese and diabetic or had renal disease (22).

M.E.K Ahmed and I.B.El-Awad .conduct blood pressure control and target organ complication among hypertensive patients in Saudi Arabia 2001. This study determined the degree of BP control and the spectrum of target organ involvement among hypertensive patients. The study was cross sectional by sample size 203. The data were collected in structural flowchart. The study conducted that the risk factor was life stresses and lower levels of public health education. (23)

In Egypt Eman Yousif Awad, Prof. Dr/Bassima Ezat Gwaied, et al .conduct study by Compliance of hypertensive patients with treatment regimen and its effect on their quality of life at 2015. The study aimed to determine the compliance of hypertensive patient with treatment regimen and its effect on their quality of life. The study was cross sectional study by sample size 300. Interview questionnaire. The study conducted that the risk factor was lack of knowledge, lack of motivation to make lifestyle changes and cost. (24)

Tafadzwa Priscilla Goverwa, Nyasha Masuka et al. Uncontrolled hypertension among hypertensive patients on treatment in Zimbabwe 2012. The study aimed to determine uncontrolled hypertension among hypertensive patients on treatment. Analytical cross-sectional was conducted on 354. Data was collected by an interviewer administered questionnaire. The study conducted that the risk factor was Obesity and adding salt to food. (25)

In Kenya Isiaho Lillian Amugistsi, Ayieko A.O., et al conducted study Determinants of hypertension among adult hypertensive patients 2016. The study aimed to identify the determinants of hypertension complications among hypertensive patients in Kenya. Cross sectional descriptive design. Data was collected using structured questionnaires. The study conducted that the risk factor was finances and lack of adequate knowledge. (26)

Bekele Tesfaye, Dessalegn Haile, et al. Conduct study by Uncontrolled hypertension and associated factors among adult hypertensive patients in Ethiopia at 2018. The study aim to determine the prevalence of uncontrolled hypertension and associated factors among adult hypertensive patients. Institution based cross sectional study, total of 345 hypertensive patients were selected using systematic sampling technique. Data were collected using structured questionnaire through face to face exit interview and chart review. The study conducted that the risk factor was unhealthy life style. (27)

FAWZI ABABIKER, LAMIA A ELKHALIFA et al. The study conducted by Awareness of hypertension and factors associated with uncontrolled hypertension in Sudanese adults before five years. The aim of the study was to determine the prevalence of uncontrolled HTN and the risk factor associated in Sudanese adults. Cross sectional study. The study population was a group of 200 hypertensive patients selected randomly. Data were collected using structured questionnaires during interview. The study conducted that the risk factor was smokers and family history. (28)

# **Chapter three**

### **(3-1)Methodology:**

#### **Study design:**

Cross sectional study .

#### **Study Area & setting:**

The study were conducted Atbara city located in northern sudan between River Nile state and Atbara River, and Aldamer city located in south of Atbara , the capital of the Nile state .

#### **study population:**

Study population was of any hypertensive patient follow up in Atabara & Aldamer locality .

#### **study sample size :**

Calculation sample size:

$$N=(Z)^2 \times P \times Q / (D)^2$$

$$D= \text{degree/size}=0,05$$

P= prevalence of hypertension

N=number of subject

$$N=384$$

#### **sample technique :**

hypertensive patient will selected randomly from primary health care .

#### **Data collection**

Data were collected through prepared questionnaire for patient with hypertensive and by measure of blood pressure through sphygmomanometer.

#### **Data managment**

The data will be managed through spss program.



**Ethical consideration:**

The proposal little group from consent of a sheikh Abdullah albadri university and we must considerate patient consent ,and privacy of information .

# **Chapter four**