

Clinical Presentation and Aetiology of Hypertension in Young Adults in Nnewi South East Nigeria

*Nwaneli CU¹, Omejua EG¹

ABSTRACT

Background: Hypertension is known to occur in young people. It often starts in childhood and continues in adulthood. It is usually asymptomatic but occasionally may cause symptoms when severe or complicated by end organ damage. In majority of cases, no cause is found and this is referred to as essential hypertension. However, a secondary cause is often suspected in young people.

Objective: The objective of this study is to ascertain the clinical presentation of hypertension in young adults and identify secondary causes in medical out patient department of Nnamdi Azikiwe University Teaching Hospital, Nnewi.

Methods: This is a retrospective study of all hypertensive patients between 18 and 30 years of age seen at the medical outpatient clinic over a 5-year period from August 2004 to July 2009. The records of these patients were retrieved and analyzed.

Results: There were 91 patients comprising of 43 males and 48 females. The mean age at diagnosis of hypertension was 25.2 years. Headache was the most common symptom and was seen in 20.3%. Other symptoms in order of frequency include leg swelling, palpitation, generalized body swelling, chest pain, blurring of vision, shortness of breath, and dizziness. Eighteen (19.8%) patients were asymptomatic. Secondary causes were identified in 36 (39.6%) patients. Renal disease was the major cause of secondary hypertension and accounted for 69% of secondary cases.

Conclusion: Hypertension occurs in young adults and may present with non specific symptoms such as headache, dizziness, palpitation and symptoms of the underlying secondary cause. Renal disease appears to be responsible for majority of the secondary hypertension.

Key words : hypertension, young adult.

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INTRODUCTION

Hypertension is a major health problem in all parts of the world¹. Hypertension is prevalent in Nigeria according to studies done in different parts of the country and also the

most common cardiovascular disease in the country^{2,3}. The definition of hypertension remains arbitrary, as it has been observed that blood pressure within the accepted normal range is also associated with risk of cardiovascular events.

However the current guidelines on management of hypertension published by the World Health Organization (WHO) in conjunction with the International Society of Hypertension defined hypertension as systolic blood pressure equal to or above 140mmHg and or diastolic blood pressure of equal to or above 90mmHg in individuals 18 years and above⁴.

Hypertension is a well recognized risk factor for coronary artery disease, stroke, heart failure and renal disease. Hypertension is less common in children and young adults and is known to increase with age.

Hypertension in young people is less well studied compared to adults. The prevalence of hypertension in young adults aged 18 -29 years in the United States is approximately 2-4% in the third National Health and Nutrition Evaluation Survey (NHANES)⁵.

Diagnosis of hypertension in children and young adults often leads to an intense search for a secondary cause. Though a secondary cause of hypertension is more often found in children and young adults several reports have shown that essential hypertension is responsible for majority of the cases of hypertension in both age groups^{6,7,8}.

The aim of this study is to determine the clinical presentation and the cause of hypertension in young adults in a tertiary health institution in Nnewi, South East, Nigeria.

METHODS

A 5-year retrospective analysis of all hypertensive patients from 18-30 years attending the medical outpatient department of Nnamdi Azikiwe University Teaching, Nnewi from August, 2004 to July, 2009 was carried out. The case notes of these patients were retrieved from the records department and the following information extracted: biodata, age at diagnosis of hypertension, symptoms on presentation, how hypertension was discovered, cause of hypertension.

RESULTS

During the study period 91 cases of hypertension in patients aged 18 -30 years were seen. There were 43 males (42.3%) and 48 females (52.7%). The mean age at

¹Department Of Internal Medicine, Nnamdi Azikiwe University Teaching Hospital Nnewi, Anambra State. *E-mail: bundus_uche@yahoo.com

diagnosis of hypertension in the subjects was 25.2 years. It was found that headache (20.3%) was the commonest symptom. The symptoms complained on presentation are shown on table I.

The cause of hypertension was found in 36(39.6%) of the cases. Table II shows the causes of hypertension. Renal disease was found in 25(27.5%) of the cases and this represents 69% of all the secondary causes found. Nine (9.9%) cases were pregnancy induced.

TABLE I : THE SYMPTOMS AT PRESENTATION

Symptoms	Number	Percentage
Headache	23	20.4
Palpitation	14	12.4
Leg swelling	13	11.4
Generalized body swelling	9	8
Chest pain	8	7.1
Blurring of vision	8	7.1
Shortness of breath	7	6.2
Dizziness	6	5.3
Loin pain	5	4.4
Insomnia	2	1.8
No symptom(incidental)	18	15.9
Total	113	100

DISCUSSION

Hypertension in most cases is asymptomatic and usually detected during routine check or evaluation for other ailments. In our study 18 of the 91 subjects had no symptom and hypertension was discovered incidentally. In young adults unrecognized hypertension may lead to early onset of complications and mortality. Increased awareness and screening for hypertension in young adults has been recommended in the Bogalusa heart study⁹.

Symptoms found in hypertension may be as a result severe elevation of the blood pressure, target organ damage or the symptoms of an underlying secondary cause¹⁰. In this study the symptoms presented with by the subjects were varied. Most of these symptoms are non specific as they are common in other ailments. It has been documented that headache is characteristic of severe hypertension¹⁰. Other symptoms related to elevated blood pressure include dizziness, palpitation and easy fatiguability while epistaxis, haematuria, blurring of vision, weakness, dizziness, angina pectoris and dyspnoea arise from complications¹⁰.

Chronic glomerulonephritis accounted for 40% of the renal causes while unspecified chronic kidney disease was documented in 32% of cases of renal disease. Other less common causes include acute glomerulonephritis, human immunodeficiency virus (HIV) associated nephropathy and polycystic kidney disease.

TABLE II: IDENTIFIED CAUSES OF HYPERTENSION

Causes	Number	Percentage
Renal disease	25	27.5
Pregnancy Induced	9	9.9
Thyroid disorders	2	2.2
No cause	55	60.4
Total	91	100.0

The findings in our study are consistent with that reported by Preston et al in a study on clinical presentation and management of patients with severe hypertension in a teaching hospital in Miami in the United States¹¹. They reported that headache was the most common symptom followed by atypical chest pain. Other symptoms found include dizziness, epistaxis and blurring of vision. Twenty-seven patients out of the total ninety-one were asymptomatic.

The cause of hypertension is usually not known in about 95% of hypertensive patients and is described as essential hypertension¹². The increasing prevalence of essential hypertension in young people has been associated with increasing obesity in young people.

In this study, renal disease was the commonest cause of secondary hypertension. This finding is in keeping with reports from other parts of the world¹³.

CONCLUSION

Hypertension occurs in young adults and may present with non specific symptoms such as headache, dizziness, palpitation and symptoms of the underlying secondary

cause. Renal disease appears to be responsible for majority of the secondary hypertension. Efforts should be intensified in increasing awareness and detection of hypertension in young people to reduce the morbidity and mortality associated with hypertension.

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