



Hypertension a great threat to human life

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Abstract

Hypertension is a sustained increase in blood pressure. Hypertension is a serious clinical condition that should be handled with care. There is a high prevalence of hypertension in the whole world even in Nigeria. It is most times asymptomatic case that is discovered in the course of a routine medical checkup. Prevention should be the best option for hypertension care to avoid a lot of complications which can lead to damage of vital organs if not properly and promptly handled. People should cultivate the habit of routine check up for their blood pressure to avert the sudden risk of hypertension. The paper discussed hypertension, considering preventive measures.

Keywords: Hypertension, Threat, Prevention, Treatment

Hypertension

Hypertension has been described as high blood pressure which is a cardiovascular disorder in which constricted arterial blood vessels increase the resistance to blood flow causing an increase in blood pressure vessel wall (Obeagu *et al.*, 2016).

Hypertension presents as a silent killer which propels the heart to over work in pumping blood through the narrowed vessels if the effect persist, damage to heart and blood vessels are more likely with increasing risk of stroke, cardiac attack and renal or cardiac failure (Epath, 2009).

It has been shown that Africans are highly susceptible to hypertension because of variables such as nutrition, economic status, political instability and war. All these can increase worry, fear and stress. Pregnancy induced hypertension (PIH) is one of the most prevalently

reported cases in the hospitals causing both maternal and neonatal morbidity and mortality. The haematological parameters of both the mother and the foetus are shown to be affected negatively and can affect their lives. There is increase concentration of fibrinogen, relative viscosity in hypertensive patients. Haematocrit level and haemoglobin concentration are independently associated with hypertension (Nnatuanya *et al.*, 2017).

Hypertension is common among all classes of people in Africa but is common among the wealthy people (MacDonald *et al.*, 2003). It is common among persons whose parents had hypertension cases before than those persons without the history of hypertension in their family. Mutations affect blood pressure by altering salt handling (Ozims *et al.*, 2017).

The autonomic nervous system plays a central role in maintaining cardiovascular haemostasis via pressure volume and chemoreceptor signals done by the altering peripheral vasculature and kidney causing increase cardiac output, increase vascular resistance and fluid resistance. Disturbance to this system such as over activity increase blood pressure and contribute to the development and maintenance of hypertension.

Majority of hypertension cases are asymptomatic which is the reason it is regarded as a silent killer. Accelerated hypertension is often linked to headache, somnolence, confusion, visual disturbance and nausea and vomiting. Retinas are affected with narrowing of arterial diameter to less than 50% of venous diameter, exudates, haemorrhage or papilledema. Others are fatigue, blurred sight and epistaxes. Hypertension is a risk factor for all clinical manifestation of atherosclerosis. It is a predisposing factor for cardiac failure (Ozims *et al.*, 2017).

It is estimated that nearly a billion people are affected by hypertension worldwide and predicted to be 1.5 billion by 2025. In general, incidence of hypertension is reported to range from 1-10% of the total world population (Volmer *et al.*, 2002), although, Africa is reported to have the highest incidence of hypertension but the actual figure is not available because of poor and lack of proper documentation, there is equally report of high morbidity and mortality from hypertension due to high cost of treatment. Nigeria has a high prevalence rate of hypertension with Kano State having the highest prevalence rates. There was observed high incidence of implications even among those on treatment due to poor compliance. The exact figure is lacking because of poor documentation (Kabir *et al.*, 2004).

Diagnosis

The diagnosis of hypertension is based on persistently high blood pressure. Usually these require three separate measurements at least one apart. If the elevation is extreme or end organ damage is present, then the diagnosis applied and treatment commenced immediately (Claire and Richard, 2015). Laboratory diagnosis is only used to exclude to identify secondary cause and not hypertension on itself.

Treatment and prevention

There are many classes of anti-hypertensive drugs which by varying means act by lowering blood pressure. Reduction of the blood pressure by

5-6mm/Hg can decrease the risk of stroke by 40%. Most times multiple drugs are necessary to achieve blood pressure control. The commonly used drugs are:

1. Angiotension converting enzyme inhibitors such as captopril, enalapril, lisinopril
2. Calcium channel blockers such as nifedipine, verapamil
3. Diuretics such as chlorthalidone
4. Alpha blockers such as prazosin, terazosin
5. Beta blockers such as atenolol, labetalol, propranolol

The degree to which hypertension according to guidelines of British Hypertension Society suggests that non-pharmacological options should be explored in all the patients who are hypertensive.

These measures include:

1. Weight reduction and aerobic exercise
2. Reducing dietary sugar intake
3. Reduction of sodium salt in diet
4. Discontinuing tobacco and alcohol consumption
5. Reducing stress and worries

Conclusion

Hypertension has been described as a silent killer because of its asymptomatic nature which is usually discovered during routine medical checkup. Hypertension in Nigeria is seen among the whole classes of the citizens and has no age limit. Some factors have been identified to increase the chances of hypertension like those whose parents have history of hypertension, increase intake of salt, sedentary life, aging and stress. Environmental factors and chemicals that cause mutations can also increase blood pressure leading to cardiac disorders. It is better to have routine check of blood pressure by everybody irrespective of the age to detect it early and manage it well by experts. Preventive measure should be adopted such as aerobic exercise, reduced salt intake, reduced tobacco and worry. Life is precious and should be preserved by everybody.

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