-HYPERTENSION- some questions and answers

by Prof FK Seedat, MD, FRCP (London) FCP (SA)

Q. Does the prevalence of hypertension apply to both urban and rural blacks?

A. The prevalence of hypertension in the rural Zulu was 10,5%[18]. The prevalence of hypertension in other rural studies in Africa varied from 4,1% in Ghana[19], 5,9% in Nigeria[20] and 7% in Lesotho[21]. Thus the prevalence of hypertension in the rural black of Africa is much lower.

Biosocial factors seen to be responsible for the high prevalence of hypertension in the urban Zulu.

Some of these factors are obesity, the rapid process of acculturation, detribalisation and urbanisation and possibly salt intake.

Q. When should one treat hypertension?

A. Anyone with three separate blood pressure readings of a diastolic blood pressure · ≥105mm. Hg. Secondary causes of hypertension must be excluded before treatment. In the elderly 65 years of age) treatment criteria has to be modified. A diastolic blood pressure between 90-104 mm. Hg. falls into the grey zone area and the decision to treat has to be determined by the factors which I have discussed. We must accept that there are no definite symptoms in hypertension. The headaches in malignant hypertension are probably due to increased intracranial pressure.

Q. Should one treat labile hypertension?

A. Three blood pressure readings should preferably be taken on at least two different occasions. 'Labile hypertension' refers to patients whose pressures at times are less than 140/90 but at other times are greater than this level. 'Labile hypertension' is deprecated because all pressures are labile. Blood pressure which is measured in the sitting position at a comfortable temperature is referred to as "casual" pressure. There should be no severe exertion, eating, smoking or exposure to cold immediately preceding the measurement. Considerably lower values may be obtained if the subject is rested or sedated or following several days in a hospital ward.

For practical clinical and epidemiological purposes, casual pressures have been shown to give a good indication of the risk of complications and to demonstrate the effectiveness of treatment. Casual blood pressure (BP taken in a doctor's consulting room) is therefore recommended for clinical purposes.

Q. What is the use of Reserpine in treating hypertension?

A. In the United Kingdom reserpine is virtually not used and beta blockers have replaced it. In Western Germany reserpine is widely used in combination with a thiazide diuretic. The dosage of reserpine should not exceed 0,2 mg/daily. The use of reserpine appears to vary from country to country.

(We are currently doing a double blind study to compare the efficacy of reserpine and a thiazide diuretic with sotalol hydrochloride and a thiazide diuretic).

Q. What is the ımportance of measuring the arm girth in taking the blood pressure?

A. The normal cuff is small for obese patients. In obese adults cuffs 40 cm long should be used. Arm girth does not distort the measurement of blood pressure as long as the cuff is long and wide enough. This is particularly important in our urban black female hypertensive patient as our studies have shown that 40% of them are obese.

Q. Is the height of the mercury manometer in relation to the patient, important?

A. Yes, the arm in which pressure is being measured should be horizontal with the fourth intercostal space at the sternum.

Q. Could you discuss further the use of drug combination in the step care management of hypertension?

A. Drug combination is the secret in the treatment of hypertension. Before one uses a drug it is necessary to understand its action. There is no point in combining methyldopa with clonidine and reserpine as they all act centrally. Similarly guanethidine, bethanidine sulphate and debrisoquine have the same action. Thus one must understand the site of action hypotensive drugs that I have discussed.

Q. How does one deal with the problem of impotence due to hypotensive drugs?

A. It is important to exclude impotence due to psychological causes. This may be done by putting patients on placebo therapy and determining if the impotence disappears. The Medical Research Council study in the United Kingdom on mild hypertension found that 36% of patients developed impotence on bendrofluazide within three months of starting treatment and 87% occurred within a year[22]. Thus all hypotensive drugs cause impotence. It may be less common with prazosin and captopril.

Q. Would one stop treatment for hypertension at any stage?

A. There are rare instances where hypertension can be cured. This is based on the theory that there is readjustment of the baroreceptors. One should not stop therapy in established hypertension. One could stop therapy for a period in patients who have an underlying stress factor.

Q. What is malignant hypertension?

A. The Expert Committee of the World Health Organisation [23] defined accelerated (malignant phase) hypertension as a rapidly progressive

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arterial hypertension characterised pathologically by necrotising arteritis with fibrinoid degeneration and clinically by high arterial pressure, retinal haemorrhages and exudates and often, but not necessarily, papilloedema. One should not disregard this condition as 80% die of renal failure.

The chances of a Primary Care physician seeing such a patient are small. However it is important to recognise this condition and refer the patient for specialised therapy because of the grave prognosis.

Q. How does one plan to 'tackle' the problem that exists in South Africa where there is a gap between what are theoretically effective therapeutic programmes and the actual everyday practical situation that exists where between 10-30% of the patients are receiving effective antihypertensive therapy.

A. In South Africa existing hypertension services could be incorporated into an existing national disease programme like tuberculosis. particular sections of the population could be reached by specific methods.

Young men liable for military service can be examined during routine medicals. Women in their child-bearing years may be covered by family planning. All females on the oral contraceptive pill should have their blood pressure checked every three months. Pilots and public transport drivers should be checked. To the public we need to emphasise that many people have it, most don't know they have it, it is a silent killer, it is easy to detect, it can be controlled, and only through long-term treatment can its dreadful consequences stroke, heart failure and kidney failure be prevented.

Q. Which diastolic phase should one take when recording the blood pressure?

A. The British usually take phase four and the Americans the fifth phase. The fifth phase (disappearance of sounds) seems to be more universally accepted because it is easier to auscultate and reflects the intra-arterial pressure. The fourth phase is more reliable in patients with hyperdynamic states, and in children. In these cases the fifth phase may even be at zero.

I have found the electronic blood pressure apparatus to be inaccurate.

Q.What is the importance of examining the fundi in hypertension?

A. Examination of the fundi to look for papilloedema or exudative retinopathy is important for prognosis and treatment. It is important to correlate vascular changes of the retinal arterioles with the patient's age because vascular changes between 50-60 years may be normal whereas in a young person this would be abnormal.

Q. What is your opinion of hypertensive patients recording their own blood pressure?

A. This is a good principle. If a patient on medication takes his own blood pressure reading and finds a response, he or she will take his tablets regularly as this would have shown that if one takes tablets regularly, one can lower one's blood pressure. This will improve therapeutic compliance. One must obviously select patients for this practice and they must be motivated to take their own blood pressure. □

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