ORIGINAL ARTICLE

Major Risk for cardiovascular Diseases - Hypertension

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ABSTRACT

Background: Hypertension is major hazard for cardiovascular diseases, more general than cigarette smoking, dyslipidemia, and diabetes, the other major risk factors.

Purpose of study: Assessment of the cardiovascular risks of hypertension.

Methods: - This prospective study was carried out in outdoor of Nishtar Hospital Multan during the period from January 2015 to December 2015. A total of 100 individuals were included in the study who was attending outdoor of the hospital.

Results: Current risk status of the 100 subjects who developed cardiovascular disease (myocardial infarction, angina, coronary bypass surgery, angioplasty, or stroke) during the study period was compared with healthy subjects, there were few differences. However, the results were different when the original risk status was used. Those patients who remained healthy had had significantly lower blood pressure (121/79 versus 134/83 mmHg) and plasma cholesterol levels (211 versus 226 mg/dL [5.45 versus 5.84 mmol/L]) 25 years before.

Conclusion: Antihypertensive drugs should be instituted if, after several different blood pressure measurements, the average blood pressure is above 140/90.

Key words: Cardiovascular disease, Dyslipidemia, Antihypertensive drugs.

INTRODUCTION

Hypertension is the key risk factor for premature cardiovascular disease, more widespread than cigarette smoking, dyslipidemia, and diabetes, the other major risk factors[1]. In the worldwide inter heart study of patients from 52 countries, hypertension report for 18 percent of the population attribute risk of a first MI[2].

Hypertension leads to left ventricular hypertrophy, and it exaggerates the danger for a variety of cardiovascular diseases. These include stroke, coronary artery disease, heart failure, and peripheral vascular disease. Increased mortality is also observed with elevations in blood pressure. Coronary disease in male and stroke in female are the major first cardiovascular events noted after hypertension onset, as observed from data from the Framingham Heart Study[3].

The danger for both coronary disease and stroke exaggerates progressively with every increment in blood pressure above 110/75mmHg. This has been demonstrated in epidemiologic studies in the general population[4,5,6,7,8] and in patients with known coronary disease[9].

The objective of the study was to assess the cardiovascular risks of hypertension.

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MATRIAL AND METHODS

This prospective study was carried out in outdoor of Nishtar Hospital Multan during the period from January 2015 to December 2015. A total of 100 individuals were included in the study who was attending outdoor of the hospital.

RESULTS

Current risk status of the 100 subjects who developed cardiovascular disease (myocardial infarction, angina, coronary bypass surgery, angioplasty, or stroke) during the study period was compared with healthy subjects, there were few differences. However, the results were different when the original risk status was used. Those patients who remained healthy had had significantly lower blood pressure (121/79 versus 134/83 mmHg) and plasma cholesterol levels (211 versus 226 mg/dL [5.45 versus 5.84 mmol/L]) 25 years before.

DISCUSSION

A group from New Zealand has taken these risk factors into account in determining the overall risk grade of individual patients, along with their stage of blood pressure, age and gender[10]. They then examined the proof of remuneration of antihypertensive therapy from the clinical trials and considered the costs of such therapy, concludes that antihypertensive therapy can be acceptable only if the risk for a major cardiovascular event over the next 10 years was 20 percent or greater or if the level

of blood pressure was so high as to mandate therapy regardless of overall risk status (170/100 mmHg). This manipulation requires that age, gender, and a number of cardiovascular risk factors be taken into account when considering when hypertension should be treated; the risk is lowest in younger patients, women, and those with no other risk factors[11].

Most physicians in the United States are probably unwilling to be as conservative as the New Zealand monogram recommends. They would almost certainly begin antihypertensive therapy in most patients with an overall 10-year risk of 10 percent or greater.

In addition to the specific patient population[12], another problem with the use of such data is that the risk status that is currently assessed may not reflect what was present previously. This is an important issue because it is the prior risk status that is more likely to be responsible for the current health of the individual. This effect was seen in male and female, younger and older subjects, and lower and higher blood pressure groups. These data suggest that effective prevention of cardiovascular disease requires adequate blood pressure throughout life.

The potential magnitude of this problem has been documented in a follow-up of 1604 male whose risk status was first assessed when they were aged 45 to 64 and free of clinically obvious cardiovascular disease and then reassessed 25 years later when they were aged 70 to 90. Most patients changed their risk status over this time period, moving forward or backward.

CONCLUSION

Antihypertensive drugs should be instituted if, after several different blood pressure measurements, the average blood pressure is above 140/90.

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