

of AH with comorbidities – 40% women, 50% men. Although a higher percentage of men were found to have early-stage AH, the interviews revealed that more women have progressed to having additional cardiac symptoms overtime. This appeared to be a result of the existence of risk factors, late diagnosis and menopause. The questioning session also revealed that a greater number of men had AH, additional cardiac symptoms and comorbidities due to some carelessness in following their physician’s instructions. Therefore, it is indicated that women are at greater risk of cardiovascular complications. Hypertension-induced stress on the heart muscles can result in stiffening and reduced elasticity, leading to LVH. The findings underscore the critical need for proactive management of hypertension to prevent adverse health outcomes. Prolonged pressure overload due to hypertension can lead to adverse cardiac outcomes such as coronary heart disease and heart failure. The study outlines the importance of early detection and control of hypertension to reduce cardiovascular risks. Understanding gender-specific risk factors and symptom presentation is crucial for tailored clinical management. Overall, early intervention, regular monitoring, and lifestyle modifications are key in mitigating the impact of hypertension on cardiovascular and end organ health.

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EPIDEMIOLOGY OF 10 YEAR RISK OF DEVELOPING FATAL CARDIOVASCULAR DISEASE

Introduction

Cardiovascular diseases (CVDs) are the leading cause of death across the world. These are a group of disorders of the heart and blood vessels which mainly include coronary heart disease, cerebrovascular disease, rheumatic heart disease, and other conditions. More than four out of five CVD deaths are due to heart attacks and strokes, and one third of these deaths occur prematurely in people under 70 years of age [1].

Risk factors which provide to the development of CVDs are physical inactivity, unhealthy diet, tobacco use, and alcohol abuse. These behavioural risk factors cause the individual to have increased blood pressure, increased blood glucose, development of obesity [1–3].

Usually, symptoms are often not noticed by the patients. A myocardial infarction or stroke may be the first sign of an underlying disease. Patients may experience shortness of breath with little or no physical activity, cold sweats, and light-headedness [1, 4].

Total cessation of tobacco use, reducing salt intake, maintaining a healthy diet, physical activity, and restricted alcohol consumption have been effective methods to reduce risk of cardiovascular diseases development [1, 2, 4].

Goal

This study aims to study the epidemiology of patients who have risk of developing cardiovascular diseases in 10 years based on SCORE-European High Risk Chart.

Material and methods of research

Retrospective analysis of the case histories of patients who visited Gomel City Polyclinic No.2 was done. This descriptive-analytical study was conducted on 200 patients of age 60 years and above who are being treated for cardiovascular diseases in the said polyclinic.

The gathered data was from the month of January to December of 2021 to 2022.

The results of the research and their discussion

Table 1 – Risk factors for development of CVD

Risk factor		No. of Patients	%
Gender	Male	170	85
	Female	30	15
Hypertension		114	57
Smoking		116	58
Diabetes		4	2

200 patients were examined in this study in which 170 of the patients were male and 30 of the patients were female.

The average age of the patients is 58.8 years; in which average age of males is 59 years and females is 57.3 years.

In this study, 114 patients of the 200 patients examined were determined to be hypertensive with Systolic blood pressure more than 140 mmHg and Diastolic blood pressure more than 90 mmHg which amounts to 57% of the patients.

116 out of 200 patients were determined to be smokers which amount to 58% of the patients.

4 out of 200 patients were diagnosed with diabetes which amounts to 2%.

Cholesterol level in the patients was an average of 6.43 mmole/L. Men had an average of 6.46 mmole/L with the highest being 7.8 mmole/L and women had an average of 6.32 mmole/L with the highest being 8.2 mmole/L.

Conclusions

SCORE was used as the assessment tool since we have information about certain risk factors only; such as age, gender, hypertension, cholesterol and smoking status. High Risk Chart was used as Belarus is in the High Risk category in European countries.[2]

Based on the European High Risk Chart – SCORE (Systematic Coronary Risk Evaluation), 10 year risk of fatal cardiovascular disease in high risk regions of Europe by gender, age, systolic blood pressure, total cholesterol, and smoking status [3].

Among the 200 patients, 86 patients are in the Low Risk group (<1% chance of CVD); 22 patients are in the Moderate risk group (Risk 2 – <5% chance of CVD); 91 patients are in the High Risk group (Risk 3 – 5–10% chance of CVD); and 1 patient in the Very High Risk group (Risk 4 – ≥ 10% chance of CVD).

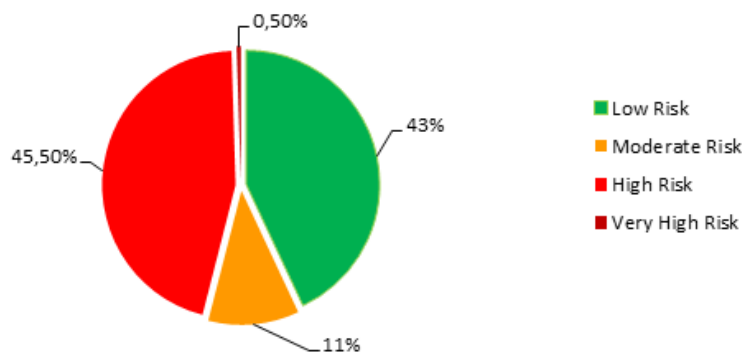


Figure 1 – Risk groups based on SCORE

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ANALYZING FEATURES OF ECHOCARDIOGRAPHIC PARAMETERS IN PATIENTS WITH ARTERIAL HYPERTENSION DEPENDING ON THE PRESENCE OF CONCOMITANT CORONARY HEART DISEASE

Introduction

Arterial hypertension, commonly known as high blood pressure, is a prevailing global health concern affecting a significant portion of the population. It is a multifactorial disorder, often accompanied by several comorbidities, including coronary heart disease (CHD). When arterial hypertension and CHD coexist, the management and treatment of both conditions become crucial for patient well-being. Echocardiography, a non-invasive imaging technique, enables the comprehensive evaluation of cardiac structure, function, and hemodynamics. By utilizing various echocardiographic parameters, clinicians can gain valuable insights into the underlying pathology and progression of arterial hypertension and its association with CHD. Consequently, a thorough analysis of these parameters becomes imperative for understanding the impact of concomitant CHD in hypertensive individuals. This research article aims to investigate the influence of concomitant coronary heart disease on echocardiographic parameters in individuals with arterial hypertension. By elucidating the distinct features and variations in echocardiographic parameters, we can enhance our understanding of the interplay between these two conditions and develop more tailored diagnostic and therapeutic strategies for these patients [1–4].