

Conclusions

Based on the data collected, a clear trend emerges, indicating that a significant proportion of liver cirrhotic patients exhibit deviations from their normal body mass index (BMI). Among these deviations, malnutrition represents the highest prevalence. Consequently, it is imperative to prioritize the management of malnutrition in the overall treatment of liver cirrhosis. Enhancing patient education and conducting research on the intricate relationship between liver health and nutrition have the potential to mitigate the prevalence of malnourished liver cirrhotic patients.

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ATHEROSCLEROTIC CORONARY ARTERY DISEASE IN PATIENTS WITH BODY MASS INDEX ≥ 30 Kg/m²

Introduction

Overweight and obesity contribute to the development of cardiovascular disease (CVD) in general and coronary heart disease (CHD) in part by their association with traditional and nontraditional CVD risk factors. Obesity is also considered to be an independent risk factor for CVD. The metabolic syndrome, of which central obesity is an important component, is strongly associated with CVD including CHD (coronary heart disease) [1]. Obesity has been increasing in epidemic proportions in both adults and children. In adults, overweight is defined as a body mass index (BMI) 25 to 29.9 kg/m² and obesity as BMI ≥ 30 kg/m². Other indexes that have been used less commonly but possibly with more predictive power include body fatness, waist circumference (WC), waist-to-hip ratio (WHR), and weight-to-height ratio. A recent study of nearly 360,000 participants from 9 European countries showed that both general obesity and abdominal adiposity are associated with risk of death and support the importance of WC or WHR in addition to BMI for assessing mortality risk [2]. Adipose cells are endocrine in nature and have a pivotal role in body metabolism homeostasis. They can release proinflammatory cytokines (IL-6, CRP, tumor necrosis factor-alpha) and fat-related hormones (leptin, adiponectin), which actively lead to the atherosclerotic process. A number of inflammatory responses including increased clotting factors (fibrinogen, von Willebrand factor, factors VII and VIII), increase plasminogen activator inhibitor type I, decreases endogenous fibrinolysis and an increases prothrombotic state, can leading to CAD [3]. In this study, we evaluated obesity as a single risk factor for atherosclerotic coronary heart disease, along with the synergistic effect of obesity and other risk factors.

Goal

This study aims to evaluate obesity as a single risk factor for atherosclerotic coronary heart disease, along with the synergistic effect of obesity and other risk factors in patients admitted in the cardiology department of the Gomel state hospital number 3.

Material and methods of research

Retrospective analysis of all the case histories was made in the cardiology department of Gomel regional clinical hospital number 3, Belarus. Permission for research was granted by the Gomel state medical university. Medical case histories of 50 patients aged between 20–83 years were used for this study. Patients were divided into two groups: obese and normal with BMI calculated as $\geq 30 \text{ kg/m}^2$ and $\leq 25 \text{ kg/m}^2$, respectively. Patients with BMIs between 26 and 29 were excluded.

The gathered data was from the month of January to December of 2023. Statistical processing of the results was carried out using the Microsoft Office Excel 2021 program.

The results of the research and their discussion

We studied 50 patients' medical case histories who had atherosclerotic cardiovascular disease in the cardiology department of Gomel regional clinical hospital number 3. Of which 86% (n=43) patients have atherosclerotic cardiovascular disease and 14% (n=7) were not, but they have a heart-related disease such as arterial hypertension. And 44% (n=22) were males and 56% (n=28) were females. All the patients were admitted to the hospital for the treatment with an average hospital stay as 17 days, minimum 1 day and maximum 36 days. As cardiovascular diseases are more common in older people, we divide the patients into 2 groups, patients age 20-50 were 16% (n=8) and patients from 50–90 were 84% (n=42). Of which 66% (n=33) have a BMI $\geq 30 \text{ kg/m}^2$, 10% (n=5) have a BMI 26–29 and 24% (n=12) have a BMI of $\leq 25 \text{ kg/m}^2$ as shown in figure 1. And 34% (n=17) are with angina pectoris and 8% (n=8) are with an episode of myocardial infarction.

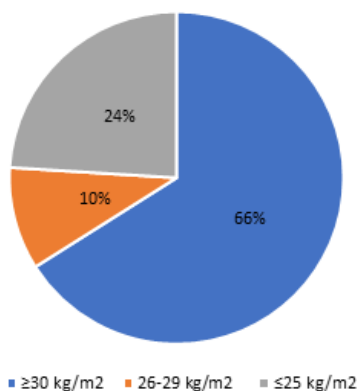


Figure 1 – Classification of patients by their BMI

About the comorbidities such as hypertension, diabetes mellitus and hypercholesterolemia, 98% (n=49) of patients have hypertension, 24% (n=12) have diabetes mellitus and 42% (n=21) have hypercholesterolemia. Other than these few patients have non cardiac comorbidities such as gastric ulcers or gastritis and dyscirculatory encephalopathy. And surprisingly all the patients from this study have no habits of drinking alcohol and smoking. We can see the significant rise in the level of blood cholesterol in the patients with increased BMI as shown in the figure 2.

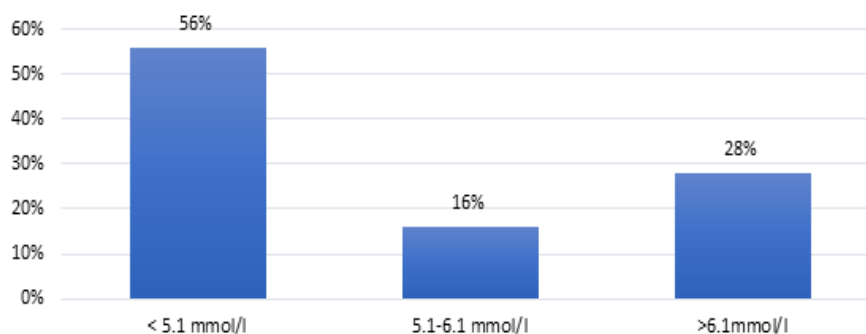


Figure 1 – Comparison of blood cholesterol level in patients with BMI ≥ 30 kg/m²

Conclusion

In this study we can conclude that BMI ≥ 30 is a risk factor for early development of atherosclerotic coronary artery disease. Our study has some limitations such as small sample size and it is only one hospital based. Severity of this disease in patients is depends on the modifiable and non-modifiable risk factors such as the male gender and smoking or greater than one risk factor, respectively. Early lifestyle modification including increasing cardiorespiratory fitness and muscle strength had up to a 35% reduction in all-cause mortality [4]. And by reducing arterial pressure, preventing left ventricular hypertrophy, decreasing insulin resistance, and decreasing blood cholesterol level also helps to decrease the mortality. Mortality was decreased not only in obese patients but also in normal weight individuals. Weight loss also proved to significantly lower the rate of adverse outcomes even after adjustment for age, sex, smoking, dyslipidemia, DM, HTN, MI, depression, and obese status [4]. Therefore, it is more important for patients with BMI to increase exercise and lose weight. Education on these principles may helpful to decrease incidents of cardiovascular diseases associated with obesity.

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THE DIAGNOSTIC APPROACHES FOR DETECTING HELICOBACTER PYLORI INFECTION AND ASSESSING GASTRIC CANCER RISK IN INDIA AND UNDERSTANDING SOCIOECONOMIC FACTORS INFLUENCING H. PYLORI INFECTION

Introduction

Helicobacter pylori (H. pylori) is a spiral-shaped, flagellated organism that can grow in the acidic environment of the human stomach. *H. pylori* infection is a notable risk factor for gastric