In order to improve the effectiveness of medical examinations it is necessary to devote more time to educational work with the population, to remind the patients about the need to undergo examinations in order to reduce the risk of complications such as myocardial infarction and cerebral stroke.

We find these results as expected, since hypertension medication is relatively cheap, while life style changes are often not costly and hard to adopt. An interesting avenue for future research might be to consider the role of mental health and social interactions in managing hypertension [3].

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THE IMPACT OF NUTRITION ON CHRONIC LIVER CIRRHOTIC PATIENTS

Introduction

Patients with liver cirrhosis often experience the significant challenge of malnutrition, which affects approximately 20–50% of individuals [1]. The severity of malnutrition tends to progress parallel to the advancement of liver failure. While malnutrition may be less apparent in patients with compensated cirrhosis, it becomes readily identifiable in those with decompensated cirrhosis. Studies have reported rates of malnutrition in around 20% of patients with compensated cirrhosis and over 50% of individuals with decompensated liver disease [2]. As outlined in these clinical practice guidelines (CPGs), the presence of malnutrition and muscle mass loss is strongly associated with an increased incidence of complications. These complications include a higher susceptibility to infections, hepatic encephalopathy (HE), ascites, and are also independent predictors of reduced survival rates in individuals with cirrhosis and those undergoing liver transplantation. Based on these findings, it is crucial to acknowledge malnutrition as a complication of cirrhosis, further exacerbating the prognosis for patients diagnosed with this condition [1]. The possibility of reversing malnutrition in cirrhotic patients remains a topic of debate. While there is consensus on the importance of enhancing the dietary intake of these patients and avoiding unnecessary restrictions that lack evidence-based support, achieving improvements in nutritional status and muscle mass is not always feasible [3, 4].

Goal

The aim of this research is to examine the significance of nutrition in the management of liver cirrhosis, as the role of nutrition has often been a secondary consideration when addressing this condition. Consequently, this article will prioritize nutrition as a fundamental aspect in the treatment of liver cirrhosis, with the goal of improving patient prognosis. Furthermore, the objective is to investigate the correlation between nutrition and liver cirrhosis by delving into

scientific articles and studies. By exploring this relationship, the article seeks to enhance our understanding of the impact of nutrition on liver cirrhosis and contribute to the development of effective treatment strategies.

Material and methods of research

We began by identifying the most pertinent inquiries based on their relevance, urgency, and comprehensiveness in addressing the intended topics. Subsequently, these established questions were directed towards a randomly selected group of patients receiving care at the Gastroenterology department of Gomel City Clinical Hospital No: 3. The primary focus of the questions revolved around determining the patients' pre- and post-diagnosis weight in relation to liver cirrhosis, along with inquiries regarding their daily dietary habits, calorie intake, and alcohol consumption. To obtain data on relevant laboratory values, the Gastroenterology Department physicians provided us with the test results of the liver cirrhotic patients, allowing for comparisons to be made based on these lab findings.

A comprehensive search of various databases, including PubMed, Embase, Google Scholar, and Scopus, was conducted to gather relevant literature. Additionally, references from identified papers were also examined. Initially, the key terms employed were "Nutrition," "Nutritional status," "Malnutrition," "Sarcopenia," "Liver cirrhosis," and "Chronic liver Disease." Furthermore, more specific keywords such as "nutritional assessment," "nutrition risk," "hepatic encephalopathy," "osteoporosis," and "liver transplantation" were utilized for each specific topic covered in the guideline.

The results of the research and their discussion

Based on the weight data acquired from liver cirrhotic patients undergoing evaluation at the gastroenterology department, subsequent to the computation of their body mass index (BMI) values, it was determined that 41% of the patients exhibited signs of malnutrition, 39% had BMIs within the normal range, and 20% were classified as overweight. The analysis revealed a distinct pattern where individuals with normal BMI values exhibited lower prevalence compared to those with deviations from the norm. In fact, a total of 61% of the liver cirrhotic patients did not fall within the range of normal BMI (See figure 1).

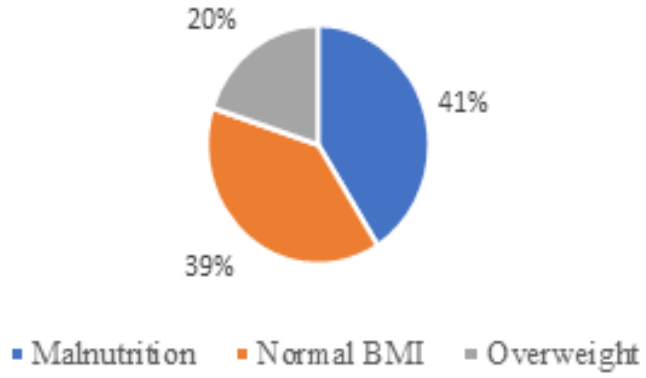

Figure 1 – Liver cirrhotic patients divided into their BMI categories

Furthermore, we conducted comprehensive patient interviews to gather valuable insights into their daily dietary intake subsequent to their diagnosis with liver cirrhosis. The ensuing charts illustrate the collected data, providing a visual representation of the patients' responses. (See figure 2).

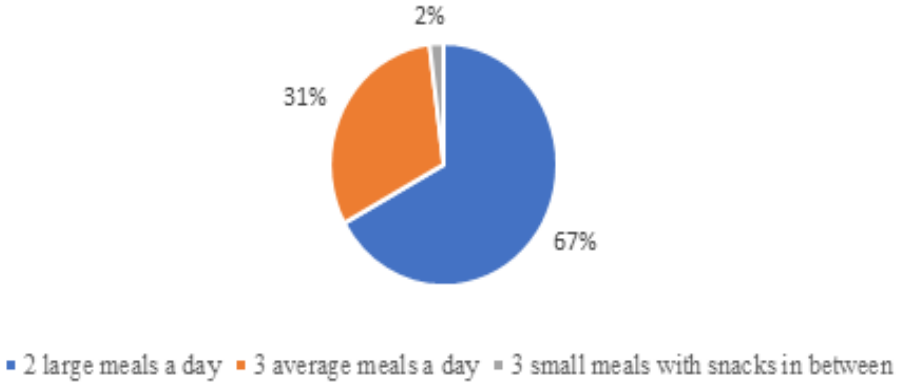

Figure 2 – Details regarding the daily mean intake of liver cirrhotic patients

The outcomes of the study indicate that despite the provision of three nutritionally balanced meals per day by the hospital, patients expressed individual preferences regarding their daily eating habits. The majority, comprising 67% of the total liver cirrhotic patients, reported a preference for consuming two large meals per day. Additionally, 31% adhered to a routine of consuming three moderate-sized meals, while a smaller proportion of 2% followed a dietary pattern consisting of three small meals with snacks interspersed throughout the day.

Our subsequent investigation in these patients centered on their laboratory reports, with a specific focus on their albumin levels. Notably, it is well-established that albumin levels below 28g/L serve as a significant prognostic indicator of poor outcomes in individuals with liver cirrhosis [5]. The findings are summarized as follows:

Albumin <11g/L – 4%.

Albumin 11–28g/L – 9%.

Albumin 28–35g/L – 69%.

Albumin >35g/L – 18%.

Low Albumin levels indicate malnutrition [6]. Consequently, within the cohort of liver cirrhotic patients, a significant majority exhibited low levels of albumin, thereby indicating a heightened risk of malnutrition among these individuals.

Drawing upon an in-depth examination of data derived from scientific articles, a multitude of compelling evidence has emerged, highlighting the direct impact of nutrition on liver health. As a result, the favorable responses observed in the collected data from liver cirrhotic patients provide further substantiation to this theory.

How can cirrhosis lead to malnutrition?

1. Early satiety can be attributed to fluid retention in the abdominal cavity known as “ascites.”

2. Mental confusion can lead to the inadvertent omission of meals or snacks, resulting in forgetfulness to eat.

3. Nausea or vomiting can arise as side effects of certain medications, potentially impacting the appetite and food intake of individuals.

4. The smell or taste of food may become unpleasant to prepare or consume due to the influence of specific medications or nutrient deficiencies, altering the sensory perception associated with food.

5.Due to reduced glycogen storage capacity in the cirrhotic liver, insufficient replenishment from regular meals or snacks leads to rapid depletion of glycogen reserves. Consequently, the liver resorts to breaking down muscle tissues to provide fuel for vital cellular processes necessary for sustaining life.

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/m^2

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/m^2 and obesity as BMI ≥30 kg/m^2. 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.