Nutritional care in alcoholic hepatitis

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ABSTRACT
The liver plays a central role in the metabolism of carbohydrates, lipids, and proteins, and in the storage, activation, and transport of vitamins and minerals. Therefore, any disease that alters its function can lead to malnutrition. In alcoholic hepatitis, malnutrition is due to several factors: decreased food intake; maldigestion and malabsorption; increased energy requirements; decreased protein synthesis; increased protein catabolism; and decreased reserve capacity. Other consequences of exacerbated alcohol consumption (consumption/day exceeds 80g of ethanol/day), can be: hyperlipidemia; hypoglycemia; alteration in intestinal motility; diarrhea; steatorrhea; deficiency of vitamins and minerals. Therefore, carriers of alcoholic hepatitis need nutritional care with the objectives of improving quality of life, maintaining liver function, recovering adequate weight, controlling protein catabolism, maintaining nitrogen balance, and protein synthesis.

Keywords: Metabolism, Carbohydrates, Proteins.

1 INTRODUCTION

The liver plays a central role in the metabolism of carbohydrates, lipids, and proteins, and in the storage, activation, and transport of vitamins and minerals. Therefore, any disease that alters its function can lead to malnutrition. In alcoholic hepatitis, malnutrition is due to several factors: decreased food intake; maldigestion and malabsorption; increased energy requirements; decreased protein synthesis; increased protein catabolism; and decreased reserve capacity. Other consequences of exacerbated alcohol consumption (consumption/day exceeds 80g of ethanol/day), can be: hyperlipidemia; hypoglycemia; alteration in intestinal motility; diarrhea; steatorrhea; deficiency of vitamins and minerals. Therefore, carriers of alcoholic hepatitis need nutritional care with the objectives of improving quality of life, maintaining liver function, recovering adequate weight, controlling protein catabolism, maintaining nitrogen balance, and protein synthesis.

Another important point to evaluate is the clinical picture. The patient may present with inappetence, nausea, vomiting, early satiety, fatigue, flatulence, constipation, cholestasis, edema, and ascites. To evaluate, we should question the presence of these symptoms, investigate the diet, and perform anthropometry.

2 OBJECTIVE

To conduct a literature search on the importance and management of nutrition in patients with alcoholic hepatitis.

3 METHODOLOGY

This is a literature review, developed with articles published from 2016 to 2023 in the electronic databases: *Scientific Electronic Library Online* - Scielo and Google Acadêmico, using the descriptors: nutrition, alcoholic hepatitis, quality of life, anthropometry and their respective synonyms, in Portuguese and English. We included only published articles that addressed the subject and were available online. Were excluded articles outside the proposed period, that did not deal with the theme, not available online and repeated articles found in different databases.

4 DEVELOPMENT

In this study, it was concluded that the deterioration of the nutritional status in alcoholic hepatitis disease is multifactorial, being a consequence of the reduction of proteins synthesized by the liver: albumin, prothrombin, ceruloplasmin, transferrin, retinol-binding protein, glutamine. It is also affecting the metabolism of amino acids: arginine, taurine, cystine, choline, tyrosine; there is also depletion of vitamins (A, D, E, K); Hypermetabolism occurs by increased ß-adrenergic activity (which is aggravated by alcohol). We also find evidence of increased insulin resistance, glycogen consumption, fat oxidation, and loss of cell mass.

It was observed that the care will be according to the stage the disease is in, besides the attention also being directed to the dysfunctions found in other organs associated with alcohol consumption.

To correct nutritional deterioration, we should prescribe: 35-40 kcal/kg and 1.2- 1.5 g/kg protein; replenish vitamins and minerals (with greater importance for vitamins A, C, D, E, K, B1, B6, B9, and zinc). Parenteral or enteral nutrition may be necessary. Alcohol abstinence is fundamental for a good result.

Anthropometry should also be performed to evaluate the nutritional status and to follow the clinical evolution. This will be evaluated by body weight (disregarding the value of edema and ascites, if any), weight loss percentage (time), body mass index (BMI), arm/pant calf/abdomen circumference, arm muscle circumference, corrected arm muscle area (AMBc), body fat percentage, bioimpedance, dynamometry.

Biochemical evaluation is important concomitant to nutritional care. We must evaluate hemoglobin, hematocrit (pay attention to digestive hemorrhages and portal hypertension), nitrogen balance (if negative, the patient is in catabolism, and if positive, he is in anabolism), 24-hour urea

dosage. Serum proteins depend on the state of hydration, presence of renal failure, intestinal malabsorption, degree of liver damage, action of steroids.

For the dietary investigation, it is necessary to question the patient in the anamnesis about the usual diet and 24-hour food recall. Then we must adjust and evaluate whether the current intake meets the patient's needs (necessary protein supply), the quality of the food, and whether there has been a decrease in intake.

5 CONCLUDING REMARKS

Patients with alcoholic hepatitis need nutritional care focused on the manifestations caused by the disease and by the exacerbated consumption of alcohol in order to improve their quality of life and prognosis.

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