

Nutritional profile before and after treatment for Visceral Leishmaniasis in a university hospital in Sergipe

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Visceral Leishmaniasis (VL) in Brazil is a serious infectious disease, mainly caused by the protozoan of the genus *Leishmania infantum*. Humans with leishmaniasis present social and economic vulnerability, in addition, they may present alterations in the immune system. The immune response and susceptibility to infectious diseases are related to the patient's nutritional status. It is believed that malnutrition is one of the factors that contribute to the progression of leishmaniasis, in addition, the development of the disease worsens the nutritional status, due to a significant weight loss in these individuals. This can become a malnutrition-infection cycle and be one of the factors that contribute to a worse prognosis, higher lethality, higher risk of reinfection and complications. One of the characteristics of patients with VL is the reduction of total cholesterol, LDL, HDL levels, as this is used for the survival of the protozoa and increase of triglycerides in the blood. Serum ferritin is usually elevated due to inflammation caused by VL. In this context, it is believed that this is a multifactorial disease and malnutrition is one of the factors that increases the risk of developing the disease. Thus, the present study aimed to evaluate the nutritional profile of patients before and after treatment for VL. This is an experimental study with a non-randomized clinical trial, carried out in patients with VL, aged between 18 and 59 years, of both sexes, who underwent treatment at the University Hospital of Sergipe between the years 2011 to 2019. used secondary data from patients included in the main project that was approved by the Ethics and Research Committee. Data were analyzed descriptively and inferentially using Jamovi 2.2 software. For descriptive analysis of qualitative variables, absolute and relative percentage frequencies were calculated, and for quantitative variables, central tendency analyzes (mean and median) and dispersion analyzes (standard deviation) were performed. A significance level of 5% was stipulated in the inferential analyses. Before starting treatment, 38.9% of the patients were malnourished, 36.1% eutrophic and 25% overweight/obese ($p < 0.01$). Comparison of nutritional status, before and 180 days after treatment for VL, revealed an increase in Body Mass Index (BMI), in which most patients evolved from malnutrition (5.6%) to eutrophy/overweight (83, 3%) ($p < 0.01$), there was also a significant decrease in ferritin in which initially the patients had an average of 33.35 ng/mL and after 180 days of treatment it was 271ng/ml ($p = 0.016$), triglycerides went from an average of 195mg/dL to 153mg/dL ($p = 0.034$) and an increase in total cholesterol from 115mg/dL to 177mg/dL ($p = 0.027$), LDL from 69.7mg/dL to 108mg/dL ($p = 0.029$), HDL from 10.1mg/dL to 44.9mg/dL ($p < 0.01$). Thus, it was confirmed that the treatment was effective in recovering the nutritional status, as well as in the clinical improvement of the patients when comparing the beginning and end of the evaluation. Thus, it is clear that an adequate treatment in VL is essential for the improvement of patients who are malnourished.

Keywords: visceral leishmaniasis; nutritional profile; treatment.