Abstract

The objective of the study is to evaluate if the administration of glutamine in parenteral nutrition (PN) solution reduces the need for antibiotics, the risk of liver disease and the duration of hospital stay in bone marrow transplantation. Material and methods: Retrospective observational study in 68 adult patients undergoing a bone marrow transplantation who required PN for mucositis. Of these patients, 40 were given PN with 2,063 ± 294 kcal/day and 98.6 ± 13.9 g of amino acids/day, supplemented with L-glutamine (13.5-27 g/day), and 28 were given isocaloric (1,966 ± 307 kcal/day) and isonitrogenated (92 ± 16.3 g of amino acids/day) PN with standard glutamine-free amino acid solution. Antibiotic consumption and duration of hospital stay were analysed. Of the total cohort, hepatic profile was studied at the beginning and on day 7 of PN in 50 patients without liver disease at the start of PN. Results: There were no differences between both groups with regard to total number and duration of antibiotics prescribed or hospital stay. Of the 50 patients without hepatic alterations at the beginning of PN, 2 patients in the control group and 5 in the glutamine group developed a hepatic profile compatible with liver disease secondary to PN. Comparing both groups, there were no differences in hepatic enzyme values. Conclusions: Supplementation with PN glutamine does not improve the variables studied, but the actual clinical use of glutamine in this haematological treatment should be studied further and its potential advantages identified.

Keywords

Nutrition, Glutamine, Transplantation, Bone marrow.