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Supplementation with concentrated milk protein in patients undergoing Hematopoietic Stem Cell Transplantation

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ABSTRACT

Objective: The aim of this study was to analyze the influence of dietary supplementation with whey protein concentrate (WPC) in the incidence of oral mucositis (OM) in patients undergoing Hematopoietic Stem Cell Transplantation (HSCT). **Methods:** Patients were supplemented with a daily intake of WPC delivering 50% of the daily protein requirements (DPR) according to the Dietary Reference Intakes and classified later based on the amount of ingested supplement until OM median onset. **Results:** 73 patients were evaluated. Forty-three were part of the historical control and 30 were supplemented with WPC. The OM had a mean duration of 5.3 days (SD: 4.5), ranging from the day of the infusion of stem cells until the 17th day after infusion and a median of 5 days after infusion. OM duration was influenced by the conditioning protocol ($p<0.01$) and WPC ($p=0.01$). Patients who consumed the WPC in an amount equal to or greater than 40% of DPR had a 35% reduction in duration of OM and the incidence of OM grades 3 and 4 was 11 times smaller. Body mass index, serum albumin and adverse reactions, such as diarrhea, nausea and vomiting, dysphagia, dry mouth and drooling, showed no statistically significant differences. **Conclusion:** The WPC intake greater than or equal to 40% of DPR helped to reduce the severity and duration of OM. The use of WPC in patients undergoing HSCT was shown to be safe, encouraging new studies in this population in order to assess its action mechanism.

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