Description of children nutritional status under the hematopoietic stem cell transplantation

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BACKGROUND: The nutritional status that precedes transplantation is an important variable for the prognosis of the patient. The patient with adequate nutritional status may face fewer complications. Malnutrition is associated with increased mortality, complications, costs, poor quality of life and days of hospitalization.

HYPOTHESIS: To describe the nutritional status (NS) of children undergoing transplantation at admission.

METHODS: A retrospective study of 95 hospitalized children submitted to Hematopoietic Stem Cell Transplantation (HSCT) during 01/2007 to 12/2014 in general hospital in the state of São Paulo. Of those 95 children, 10 were submitted to the 2nd HSCT, totaling 105 evaluations. The weight of collected data and height at admission to the z-score procedure and calculated weight for height (W/H) and body mass index for age (BMI / A) by Anthro and Anthro Plus program were analyzed and the nutritional status (NS) was classified according to age up to 2 years W/H and above two years BMI/A.

RESULTS: Mean age was 6.4 years, 31.6% female, 68.4% male. Among the underlying diseases: 44% hematologic malignancies and non-malignant, 9% oncological diseases and 38% non- oncohematologic. With respect to NS the majority of patients, 61%, eutrophic, 5% severe malnutrition, 12% malnutrition, 11% overweight and 16% obesity. The nutritional monitoring is very important in transplantation, for patients in extreme nutritional status as underweight or severe malnutrition, may have worsening of complications such as toxicity of chemotherapy, which in severe levels can lead to death.