Presentation Abstracts

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The effect of protein supply in critical cancer patients

Jerusa Márcia Toloi[1], Ana Carolina Gallo Laranja[1], Fábio Barlem Hohmann[1,2], João Manoel Silva Júnior[1,2]

[1] Universidade de São Paulo, São Paulo, SP, Brazil.
[2] Hospital Israelita Albert Einstein, São Paulo, SP, Brazil.

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Corresponding author
jerusatoloi@gmail.com

Introduction: According to the National Cancer Institute, 704 thousand new cases of cancer are expected in Brazil for each year of the 2023-2025 triennium.(1) Malnutrition in cancer patients is common and largely multifactorial due to the direct and indirect effects of the tumor, treatments performed and psychological factors.(2) **Objective:** To verify whether, in patients admitted to the ICU, a protein intake target of 2.0g/kg/day compared to a conservative protein intake target of 1.5g/kg/day may be associated with kidney damage as well as provide benefits such as reduced days on mechanical ventilation, ICU, hospital and reduced mortality rates in the ICU and hospital. **Methods:** Multicenter, randomized and controlled study. Patients admitted to the ICU using enteral and/or parenteral nutritional therapy were involved. Data related to nutritional therapy (calorie and protein), renal function and hospital outcomes were collected. Eligible patients were randomized into two groups of protein targets: Group 1 (G1) with 1.5g/kg/day and Group 2 (G2) with 2.0g/kg/day of protein supply. **Results:** 125 patients were randomized, 60 patients in G2 and 65 in G1. Median age was 78.0 (59.5-87) years, 51.2% female, BMI 23.7 (20.2-27) kg/m2, NRS 2002 median 3.0 (2.0-4.0), NUTRIC median 4.0 (2.0-5.0) and SAPS 3 was 57.0 (36.0-67). There was no statistically significant difference between the groups in relation to demographic characteristics. The groups had no difference about serum creatinine level [0.74(0.59-0.91) *versus* 0.77 (0.57-1.02), p=0.913] mg/dL, urea [60.7(41.3- 80.2) *versus* 63.1 (38.6-95.7) mg/dL, p=0.83], length of hospital stay [19.0(15.0-31.5) *versus* 19.0 (11.7-30.0) days, P=0.617], duration of mechanical ventilation [7.0 (3.5-11.5) *versus* 8.5 (6.0-13.0) days, p=0.405]. However, the G2 group, target of higher protein consumption, had a shorter length of stay in the ICU [10.0 (7.0-17.2) *versus* 13.5 (10-21) days, p=0.017]. As expected, G2 had a higher protein intake [1.36 (0.97-1.7) *versus* 1.18 (1.02-1.4) g/kg/day, p=0.023] than G1. Furthermore, there was no statistically significant difference in the rate of hospital mortality (p=0.627) and dialysis (p=0.37). **Conclusion:** Higher protein intake targets have been shown to be safe in terms of preserving kidney function and may be associated with shorter ICU stays.

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