

Nutritional therapy and outcomes in underweight critically ill patients.

Abstract

BACKGROUND & AIMS:

Critically ill patients with body mass index (BMI) < 20 kg/m² have worse outcomes than normal/overweight patients possibly because underweight is a marker of malnutrition. To assess the effects of nutrition therapy in this population during the first week of an ICU stay.

METHODS:

Prospective, 2-centre, observational study. Nutritional evaluations were performed between days 2 and 3 (first) and between days 5 and 7 (second) of ICU admission. In the first evaluation, patients were divided into non-fed (without nutritional support) and early-fed (those already receiving nutritional support) groups. In the second evaluation, patients were divided according to caloric intake (\geq or < 20 kcal/kg) and protein intake (\geq or < 1.3 g of protein/kg).

RESULTS:

Of the 4236 patients screened and 342 were included in the cohort. Mortality was 58.5% (median 21 [11-38.25] days of follow-up). Unadjusted patient survival was worse in the non-fed group than in the early-fed group (HR 1.66; 95%CI, 1.18 to 2.32). There was no difference in mortality between groups after adjusting for the SOFA score on the day of the evaluation. At the second evaluation, unadjusted analysis showed better in-hospital survival in patients with higher caloric (HR 0.58; 95%CI, 0.40 to 0.86) and protein intake (HR 0.59; 95%CI, 0.42 to 0.82); there was no association between mortality and caloric or protein intake after adjusting for the SOFA score on the day of the evaluation.

CONCLUSION:

Nutritional therapy in the first week of ICU stay did not affect vital outcome after adjusting for the SOFA score on the day of the evaluation in underweight critically ill patients.