Abstract

As a response to metabolic stress, obese critically ill patients have the same risk of nutritional deficiency as the non obese and can develop protein-energy malnutrition with accelerated loss of muscle mass. The primary aim of nutritional support in these patients should be to minimize loss of lean mass and accurately evaluate energy expenditure. However, routinely used formulae can overestimate calorie requirements if the patient’s actual weight is used. Consequently, the use of adjusted or ideal weight is recommended with these formulae, although indirect calorimetry is the method of choice. Controversy surrounds the question of whether a strict nutritional support criterion, adjusted to the patient’s requirements, should be applied or whether a certain degree of hyponutrition should be allowed. Current evidence suggested that hypocaloric nutrition can improve results, partly due to a lower rate of infectious complications and better control of hyperglycemia. Therefore, hypocaloric and hyperproteic nutrition, whether enteral or parenteral, should be standard practice in the nutritional support of critically ill obese patients when not contraindicated. Widely accepted recommendations consist of no more than 60-70% of requirements or administration of 11-14 kcal/kg current body weight/day or 22-25 kcal/kg ideal weight/day, with 2-2.5 g/kg ideal weight/day of proteins. In a broad sense, hypocalorichyperprotein regimens can be considered specific to obese critically ill patients, although the complications related to comorbidities in these patients may require other therapeutic possibilities to be considered, with specific nutrients for hyperglycemia, acute respiratory distress syndrome (ARDS) and sepsis. However, there are no prospective randomized trials with this type of nutrition in this specific population subgroup and the available data are drawn from the general population of critically ill patients. Consequently, caution should be exercised when interpreting these data.

Keywords

Critically ill obese patients, Hypocaloric nutrition, Indirect calorimetry, Predictive equations.