Abstract

Hyperglycemia is one of the main metabolic disturbances in critically ill patients and is associated with increased morbidity and mortality. Consequently, blood glucose levels must be safely and effectively controlled, that is, maintained within a normal range, avoiding hypoglycemia on the one hand and elevated glucose concentrations on the other. To accomplish this aim, insulin is often required, avoiding protocols designed to achieve tight glycemic control. To prevent hyperglycemia and its associated complications, energy intake should be adjusted to patients’ requirements, avoiding overnutrition and excessive glucose intake. Protein intake should be adjusted to the degree of metabolic stress. Whenever patients require artificial feeding, the enteral route, if not contraindicated, should be used since parenteral nutrition is associated with a higher frequency of hyperglycemia and greater insulin requirements. Enteral nutrition should be administered early, preferably within the first 24 hours of admission to the intensive care unit, after hemodynamic stabilization. Specific diets for hyperglycemia, containing low glycemic index carbohydrates and fibre and enriched with monounsaturated fatty acids, can achieve good glycemic control with lower insulin requirements.

Keywords

Hyperglycemia, Diabetes mellitus, Artificial nutrition, Glycemic control.