NUTRITIONAL STATUS AND DIETARY INTAKE OF MECHANICALLY VENTILATED PATIENTS AT MOI TEACHING AND REFERRAL HOSPITAL-KENYA

Abstract.

Critically ill patients are hyper metabolic and have increased nutrient requirements. There is increased catabolism and loss of lean tissue to critical levels after 14 days if patient is starved. The rationale for nutritional support is based upon clinical judgment but the nutritional practices are inconsistently applied for the critically ill patient. The main objective of this study was to determine the nutrition status and compare it to the dietary intake of mechanically ventilated patients. A descriptive cross sectional study design was used to study patients receiving enteral feeds at target or goal rate in 24 hours. Purposive sampling method was used to enroll 39 adult patients who are on mechanical ventilation and feeding enterally. Total daily calorie values were estimated using the institution nutrition data, based on recipes used in preparation of blendrized feeds from the kitchen. Patient?s nutrition status was ascertained through laboratory investigation of liver function test showing, direct albumin and protein levels as indicators of catabolic process.mid upper arm circumference was measured to assess the degree of muscle wasting. An energy requirement was determined for the entire sample by using an estimated 25-30kcal/kg/day for an average adult weight of 70kg. A computer statistical package (SPSS) version 22 was used to analyze data. Each patient received 1008.9kcal/day (14.4kcal/kg/day), protein 1.1g/kg/day, this shows that the patients were underfed. The majority of patients (67.7%) were significantly underfed; 25.8% of patients received less than 50% of their daily energy requirements. Only 3 patients (9.7%) had adequate nutritional intake. There is a relationship between the patient nutrition status & dietary intake as depicted by .001. Biochemical data indicated that 11 patients had a mean of 41.31 g/dl (albumin) while 23 patients were below the normal range with a mean of 24.9 g/dl, while 5 patients had direct protein of normal range with a mean of 70.6 g/dl while 29 patients were below normal range with a mean of 47.34 g/dl. From the results on mid upper arm circumference (MUAC) all patients were within the required range with a mean of 29.1 cm (23cm). The study concluded that maintaining optimal nutritional status is key to improving clinical outcome of critically ill patients.

Authors.

Daniel Amdany Komen , Silvenus Ochieng Konyole , Dorcas Maina and Dinda Victor.