

The comparison of the course and prognosis of patients in intensive care unit according to BMI and albumin values

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Introduction: Patient population over the age of 65 increases rapidly. Elderly patients constitute the majority of the patients undergoing treatment in intensive care units. In the present study, the effect of BMI and albumin values at first admission to intensive care on the course and prognosis of geriatric patients was investigated.

Material and Method: After the approval of ethics committee was obtained, medical records of patients over the age of 65 who were admitted to anesthesia intensive care unit and stayed at least for three days in intensive care were reviewed retrospectively.

Data on patients were collected retrospectively from the records. Demographic data (age, sex, body weight, length, body mass index (BMI)) the cause of admission to ICU, primary diagnosis was recorded retrospectively. The severity of the disease was evaluated with APACHE II score and SOFA score. As variables of outcome, duration of admission at hospital and intensive care unit, their mortality rates, and BMI and albumin values at admission were evaluated.

Results: Overall 113 patients were included in the study. There was inverse relation between Apache and BMI and apache and albumin while there was significant direct relation between apache and mechanical ventilation day ($p < 0.05$). Significant negative correlation was found between Sofa and respectively BMI and albumin and positive correlation between Sofa and, mechanical ventilation duration ($p < 0.005$).

In the group of patients that died, mean BMI was significantly lower than that in those who are discharged or transferred to clinic ($p < 0.001$). Similarly, in the group of patients that died, albumin levels were also significantly lower than those in the other patients ($p < 0.001$).

Discussion: Malnutrition influences morbidity and mortality by leading to disturbance in various organ functions, immune system and wound healing. An albumin level lower than 3.0 mg/dl is an important marker of malnutrition. In the present study, low albumin level was found to be associated with mortality as indicator of nutritional status. Nutritional status, BMI and albumin were established as factors influencing mortality.

Biography

I. Ozkan Onal has completed his medical education from Ankara Gazi University Medical School and he has completed his anesthesia training from Ankara Hacettepe University Medical School and he is working in Ankara Yuksek Ihtisas training and educational hospital. He has published more than 15 papers about anesthesia.

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