



Correlation between Insulin-like Growth Factor-1 (IGF-1) and Serum Albumin Levels of Elderly Malnourished Patients

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Insulin-like growth factor-1 and serum albumin levels can be used as markers of nutritional status. Although both of these markers are influenced by protein intake, several researches showed conflicting results about correlation between albumin and IGF-1. Study in centenarian found no correlation between albumin and IGF-1, while other studies which used different patients showed association between them. This study was conducted to confirm whether there was an association between IGF-1 and serum albumin levels, especially in hospitalized elderly malnourished patients in acute ward before discharged.

Method:

This was a cross-sectional study performed on 55 hospitalized elderly patients aged 60 years and above with malnutrition. Patients were examined for their nutritional status with the criteria based on Mini Nutritional Assessment. Patients were also measured for their IGF-1 and serum albumin levels.

Results:

Fifty-five elderly patients with malnutrition, a male to female ratio of 31:69, and a mean age of 72.62 (8.85) years were enrolled in the study.

The mean of IGF-1 level was 62.25 (22.89) ng/mL and the mean of serum albumin level was 3.26 (0.69) g/dL. The correlation coefficient between IGF-1 and albumin was 0.44 (p 0.001), and -0.43 between IGF-1 and age (p 0.001). There was no relationship between albumin and age.

Conclusions:

There was a moderate positive relationship between IGF-1 and albumin levels, a moderate negative relationship between IGF-1 level and age, but no relationship between albumin level and age of elderly malnourished patients.

Keywords: Insulin-like Growth Factor 1, albumin, elderly