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## Effect of nutritional counseling in the form of individualized meal plan on serum albumin level among hemodialysis patients

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**Introduction:** Serum albumin is the most commonly used malnutrition marker in clinical practice as hypoalbuminemia is considered to be a malnutrition risk among the patients on hemodialysis and a strong predictor of death. Low serum albumin levels are due to low intakes of energy and protein or insufficient energy intake resulting in poor protein utilization.

**Purpose:** This was a prospective, clinical trial hospital based (intervention) study to evaluate the effect of nutritional counseling in the form of individualized meal plan on serum albumin level among hemodialysis patients.

**Methods:** The study was conducted on maintenance hemodialysis patients attending Dr Salma Hemodialysis & Transplant Center outpatient clinic, Khartoum. 134 adult patients (males & females) were divided into a test group (n=77) and a control group (n=57). The test group after nutritional counseling consumed individualized diets for a period of 6 months that provided adequate amounts of energy and protein according to the recommendations of the National Kidney Foundation while the control group continued consuming their usual diets. Serum albumin was determined at baseline and every 2 months. Data were analyzed using SPSS.

**Results:** Serum albumin increased gradually from 3.14 g/dl at baseline to 4.32 g/dl at 6 months with test group. The study shows big differences in increasing of serum albumin level during the study with intervention group compared with control. The mean test group was (3.1, 3.3, 3.9 and 4.3) and the mean of control group was (3.2, 3.16, 3.19 and 3.84) in baseline, 2-4-6 months respectively.

**Conclusion:** The study demonstrated that effective nutritional counseling rendered to maintenance hemodialysis patients in the form of individualized meal plans that provided adequate energy and protein was effective in the control and improvement of serum albumin level among these patients. Therefore, nutritional counseling by qualified dietitians should be mandatory in renal units as part of the medical therapy management to reduce the incidence of hypoalbuminemia among hemodialysis patients.

### Biography

Suhair Abdalla Khalil Abdallah has completed her PhD in Clinical Nutrition from Ahfad University for Women, Sudan. She is a Clinical Dietitian at King Faisal Specialist Hospital & Research Center, Kingdom of Saudi Arabia. She has long experience of 18 years in clinical nutrition field.

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