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Nutritional therapy of chronic kidney diseases with acute pulmonary edema

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Introduction: Chronic Kidney Disease (CKD) is defined as structural or functional kidney damage for 3 months or more, generally progressive and irreversible, with $eGFR \leq 60$ ml/min/1.73 m² affecting some metabolic pathways. Pulmonary edema is a frequent complication of CKD. The risk of Acute Pulmonary Edema (APE) in individuals with CKD particularly stage 5 (renal failure) has been reported in several literatures. On the other hand, malnutrition occurs commonly in CKD patients, known as Protein Energy Wasting (PEW), therefore nutritional intervention is required.

Case Report: A male 31 years old with a medical diagnose acute on CKD differential diagnoses CKD+APE. Diagnosis of nutrition was moderate protein energy malnutrition with metabolic disorders were normocytic normochrome anemia (Hb 8.1 g/dl), severe immune system depletion (TLC 937 cells/mm³), leukocytosis (WBC 29300/ μ L), azotemia (serum urea 222 mg/dl, serum creatinine 15.81 mg/dl), hypoalbuminemia (serum albumin 2.6 g/dl), hyponatremia (132 mmol/L), hyperkalemia (7.3 mmol/L) and functional gastrointestinal status. Nutritional management was given 480 kcal energy and increased gradually according to the tolerance of the patient to 1600 kcal of total energy expenditure, with macronutrient composition 9% of protein (0.8 g/kg of IBW/day), 50% of carbohydrate and 41% of fat. Patients were given micronutrients, extract fish cork capsules, curcuma, fish oil and ion-exchange resins. Fluid requirements 1000 ml+urine output per 24 hours. At the end of monitoring (day 24) obtained an improvement in immune system (TLC 1254 cells/mm³), WBC 7600/ μ L, serum albumin 3.0 g/dl, potassium 3.9 mmol/l and sodium 136 mol/L.

Conclusion: Nutrition interventions in CKD are given with the aim of reducing uremia toxicity, improving the state of malnutrition and inflammatory syndromes, improving metabolic disorders and enhance the quality of life of patients.

Biography

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