Introduction and Aim of the Work

According to published reports roughly 20-50% of patients on maintenance hemodialysis or peritoneal dialysis suffer from protein-energy malnutrition (PEM). In the majority of dialysis patients, malnutrition is mild to moderate, only in approximately 10% of patients sever PEM can be found. PEM develops during the course of chronic kidney disease (CKD) (**Ikizler et al; 1995).** Protein-energy malnutrition (PEM) is common among patients with chronic kidney disease (CKD stages 4 and 5) and is associated with an increased risk of morbidity and mortality (**Kuhlmann et al; 2007**). There are little data on the prevalence of PEM in predialysis CKD stages, but a change in body cell mass has recently been reported (**Bellizzi et al; 2006**).

Among the causes of malnutrition in HD patient, inadequate dietary intake seems to be the most frequent and important Although it has been hypothesized that inadequate intake might be secondary to underlying illness, psychosocial conditions, aging, or chronic inflammation, definite data on the etiology of inadequate intake in HD patients are still lacking (**Bergstrom J ; 1995**).

Prevention of malnutrition among HD patients, it is important to identify the patient characteristics associated with inadequate nutrition (**Aguilera et al; 2004).**

The nutritional status of a patient can best be judged by combination of clinical parameters, laboratory findings and certain technical examinations. There is no single measure that provides a comprehensive evaluation of nutritional status (**Woodrow et al; 1996**).

Dietary protein requirement increase in patients on maintenance dialysis. This is due to catabolic effects of dialysis procedure itself as well as to the loss of amino acids and proteins through the dialysate (**Ikizler et al; 2002**).

Prior to the initiation of any dietary intervention, the target edema-free standard weight of the patient should be determined using NHANES data tables. If malnutrition has been confirmed dietary counseling by a trained renal dietician should be initiated. Counseling should involve a detailed and quantitative evaluation of dietary protein and energy using dietary diaries (**Pupim et al; 2006**).

Aim of the work

The aim of this essay is to review causes, assessment and treatment of malnutrition among maintenance hemodialysis patients.