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CHURIRAT VONGAREESWAT : EFFICACY AND TOLERANCE OF SPECIALIZED LIQUID NUTRITION IN HEMODIALYZED PATIENTS.

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The aims of this study were to evaluate and assess the nutritional status of hemodialyzed patients after being supplemented with a specialized liquid diet (Nepro[®]). The study also evaluated the safety and tolerance of a specialized liquid diet for hemodialysis patients during a 3 week period. Forty outpatients with ESRD in a hemodialysis unit, 27 males and 13 females participated in the study. Patients were divided into 2 groups, group I (N= 20) had Nepro[®] supplemented 2 cans/day. Group II (N= 20) had Nepro[®] 4 cans/day. This replaced their regular diet and they had nothing by mouth except water. Anthropometric and blood parameters were measured at day 0, 7 and 21 while tolerance and acceptability tests were evaluated after day 7 through day 21. Dietary knowledge was assessed after the program.

The baseline PCM of hemodialysis patients was 40 % according to BMI and %IBW, and 70, 72.5, 72.5 and 65 % in terms of TSF, MUAC, MUAMC and MAMA, respectively. After supplement with the specialized liquid diet both groups showed improvement of the means (\pm SEM) intake of total dietary of calories, protein, fat and lower level of cholesterol intake. Both water and fat soluble vitamins were improved except vitamin A in group II. Sodium and potassium intake were decreased only in group I. Phosphorus, calcium, trace elements and iron intake were improved in both groups. There were no changes in anthropometrics data throughout the study. In biochemical tests there was slightly significant improvement of creatinine test in group II. Both groups had total protein, albumin and prealbumin slightly improved and the number of patients who had serum protein < 6.0 g/dL were decreased in both groups. Serum phosphorus and calcium increased significantly from day 0 in both groups while magnesium had no significant change. Serum cholesterol and triglycerides in group II were significantly decreased on day 21. Total lymphocytes count in both groups were significantly increased from day 0 but serum electrolytes were not changed. Serum vitamin E and vitamin C in group II were significantly increased from day 0. Thiamin and riboflavin status were improved in both groups. Serum retinol and trace elements (Zn,Cu) were not changed. Acceptability and tolerance tests were well accepted in both groups.

This study showed that specialized liquid diet supplementation was important for CRF patients because it increased calories and protein intake. The biochemical tests showed improvement of protein status, serum calcium, lipid profiles, electrolytes, immunity, hemoglobin and vitamins status except for serum retinol and serum phosphorus. The supplementary of specialized liquid diet either 2 or 4 cans/day had similar effects, safety and tolerance.