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138 ADIPONECTIN, LEPTIN: FOCUS ON LOW-PROTEIN DIET SUPPLEMENTED WITH KETO ACIDS IN CHRONIC GLOMERULONEPHRITIS WITH HBV PATIENTS

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Leptin and adiponectin come from adipose tissue, which can reflect patients’ inflammation and status of lipid metabolism. Our study is aim to evaluate the effects of short-term restriction of dietary protein intake (DPI) supplemented with keto acids on nutrition and lipid metabolic disturbance in chronic glomerulonephritis with HBV patients. 17 patients were randomized to either low DPI with keto acid-supplemented (sLP) or low DPI (LP) group for 12 weeks. Low-protein diet (LPD) was individualized with protein intake of 0.6–0.8 g/kg/day and keto acids were supplied in 0.1 g/kg/day. Nutritional index other clinical index were measured to evaluate the effect and safety respectively. Serum levels of adiponectin, leptin were determined by ELISA assay. The urine protein excretion level was significantly decreased after 12 weeks in the sLP group compared to the baseline and LP group (baseline: 4.52 ± 1.74 4 weeks: 3.19 ± 1.52 8 weeks: 2.19 ± 1.1 12 weeks: 1.64 ± 0.77 g, P < 0.05). No difference was observed in serum creatinine, eGFR.

Nutritional index was significantly improved at week 12 in the sLP group. 4 week later, Serum leptin of sLP decreased significantly compared with baseline: [baseline: 4.99 (1.66, 11.44) ng/mL; 4 weeks: 2.29 (1.22,10.2) ng/mL; 8 weeks: 1.8 (1.18,5.07) ng/mL; 12 weeks: 1.38 (0.88,2.55) ng/mL, P < 0.05]. The level of serum adiponectin in sLP raised after 8 weeks compared with the baseline and LP (baseline: 21.60 ± 4.78 pg/mL, 4 weeks: 22.30 ± 4.98 pg/mL, 8 weeks: 24.44 ± 4.43 pg/mL, 12 weeks: 25.11 ± 4.25 pg/mL, P < 0.05).

In conclusion: Short-term restriction of DPI 0.6–0.8 g of protein/ kg IBW/day is safe, when combined with keto acids, is associated with decreased of urininary protein and improvement of lipid metabolism

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140 ENERGY EXPENDITURE, ENERGY INTAKE AND NUTRITIONAL INDICES IN CHINESE PERITONEAL DIALYSIS PATIENTS

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The estimated energy expenditure is critical for prescribing an appropriate energy intake for dialysis patients. Unfortunately, it is often higher than actual energy intake from a single day. It has been hypothesized that the difference might be related to repeated measurements. A total of 206 clinically-stable patients on peritoneal dialysis longer than 3 months were studied. Dietary protein and energy intakes were measured repeatedly and time-averaged values were calculated. Energy expenditures were estimated from Harris-Benedict, Schofield and WHO formulas. Other nutritional indices included anthropometric, biochemical, lean body mass from DXA and hand grip strength. The time-averaged normalized protein and energy intake were 0.86 ± 0.14 g/kg/d, 28.24 ± 4.40 kcal/kg/d. The estimated energy expenditures were significantly higher than actual energy intake calculated by above formulas with differences of 369.35, 433.26 and 469.99 kcal/d respectively. When patients were divided into three groups according to the tertile of differences between estimated energy expenditure from Harris–Benedict equation and actual energy intake, we did not observe any differences in serum albumin and prealbumin, lean body mass measured by DXA and hand grip strength between groups. Conclusions: The estimated energy expenditure from above formulas still surpassed the actual energy intake even though it was measured repeatedly in well-trained PD patients. The appropriate equations of energy expenditure should be derived from dialysis population specifically

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141 SEASONAL VARIATION OF BLOOD PRESSURE IS NOT ASSOCIATED WITH DIETARY ACID LOAD IN PERITONEAL DIALYSIS

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Seasonal variation of blood pressure is a common phenomenon in dialysis patients. The potential mechanisms are not verified. Whether dietary acid load plays an importance role in seasonal variation of blood pressure is unknown. A total of 181 clinically-stable patients who had been on peritoneal dialysis(PD) more than 3 months were studied between June, 2011 and Nov, 2011, i.e. summer to autumn, when seasonal variation of blood pressure represented most obviously. Blood pressure and dietary nutrients intakes were measured monthly and time-averaged values calculated for summer and autumn respectively. Dietary acid load was estimated by NEAP: NEAP (mg/d): 54.5 protein (g/d)+potassium (mEq/d)-102. Other biochemical and dialysis adequacy was examined also. With the cold season coming, systolic and diastolic blood pressure (SBP and DBP) increased, SBI129.2 ± 16.8mmHg vs 133.9 ± 15.6 mmHg and DBP 76.8 ± 10.5 mmHg vs 78.7 ± 10.1mmHg respectively. Similar trends were observed in body weight, total fluid removal via dialysate and urine, and all dietary nutrients intakes including NEAP values. However, the differences in SBP and DBP between autumn and summer were not associated with the differences in NEAP and dietary nutrients intakes. Conclusions: The increased nutrient intakes including dietary acid load could not explain the seasonal variation of blood pressure in PD patients. Other potential causes still need to be determined.

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