In conclusion, these original data suggest that uric acid may have a role in inflammation and atherosclerosis in HD patients

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EFFECT OF 3-YEARS ADHERENCE TO A LOW PROTEIN DIET ON THE PROGRESSION OF GLOMERULAR FILTRATION RATE IN CHRONIC KIDNEY DISEASE PATIENTS

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Low protein diet for patients with chronic kidney disease (CKD) during conservative treatment (CT) aims to reduce the progression and symptoms of the CKD. This study aimed to evaluate the glomerular filtration rate (GFR) in patients receiving low protein diet during 3 years ($\cong$ 4 clinic visits per year). The study comprised 321 patients with CKD on CT from a *Renal Nutrition Ambulatory of a Federal Lagoa Hospital*. All patients received dietary prescription according to NKF-K/DOQI recommendations and the diet adherence was evaluated with patients being asked whether they were adhering to the treatment and through reported dietary intake (2 weekdays and 1 weekend day). Patients were divided in 4 groups: diabetes Mellitus (DM) patients who adhered (G1) and not adhered to the diet (G2), and patients without DM who adhered (G3) and not adhered to the diet (G4).

Groups	Before	After
Group 1-DM (n=83)		
Cr (mg/dL)	1.9 ± 0.6	1.6 ± 0.7*
GFR (mL/min)	37.8 ± 14.4	46.6 ± 17.3**
Group 2-DM (n=106)		
Cr (mg/dL)	1.9 ± 0.7	2.03 ± 0.7
GFR (mL/min)	43.8 ± 17.3	42.6 ± 13.3
Group 3-non-DM (n=75)		
Cr (mg/dL)	2.2 ± 0.8	1.8 ± 0.8*
GFR (mL/min)	34.3 ± 13.1	40.9 ± 21.7
Group 4-non-DM (n=57)		
Cr (mg/dL)	2.2 ± 0.8	2.4 ± 1.0
GFR (mL/min)	39.9 ± 19.0	35.2 ± 18.4

There was no difference between diabetic and non-diabetic patients who adhered to the diet. Both groups showed improvement on GFR. In conclusion, these analyses suggest that a lower protein intake retards the progression of renal disease.

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INFLAMMATION INCREASES THE RESTING ENERGY EXPENDITURE IN HEMODIALYSIS PATIENTS

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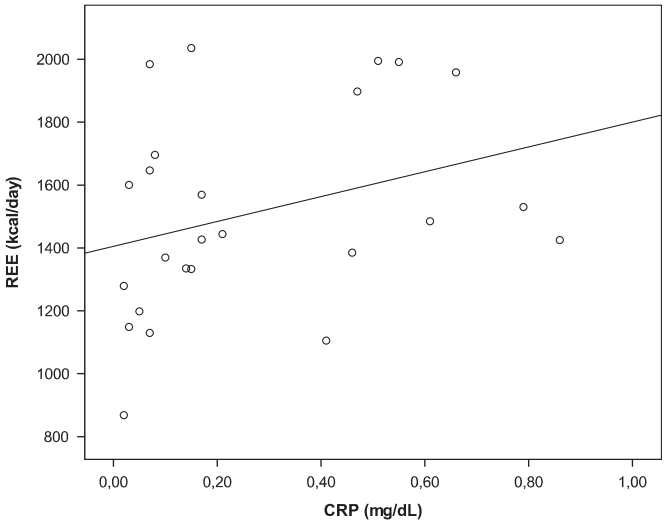
Resting energy expenditure (REE) is the predominant component of total daily energy expenditure (TEE). Metabolic disorders and comorbities, such as inflammation and diabetes, can affect the REE in hemodialysis (HD) patients. The objective of this study was to evaluate the relationship between inflammation and REE estimated by TEE in HD patients. Twenty-five HD patients (54.5 ± 11.7 years, 15 men, BMI, 24.4 ± 4.7 kg/m^2, urea clearance (Kt/V_{sp}) of 1.43 ± 0.26 and 58.2 ± 42.7 months on HD) were studied. TEE was measured during two days (one dialysis and one nondialysis day) by SWA (SenseWear Pro2 Armband, BodyMedia Inc, Pittsburgh, PA, USA). This monitor provides directly the TEE and the physical active energy expenditure (PAEE); the REE measurement was obtained by the subtraction of PAEE and thermic effect of food (approximately 10% of TEE) from TEE. C-reactive protein (CRP) was measured by immunoturbidimetric method. The REE was 1677.7 ± 273.5 kcal/d for men and 1267.0 ± 221.6 kcal/d for women ($p < 0.0001$). The CRP levels values were 0.27 ± 0.26 mg/dL and nine patients (36%) had CRP >0.3 mg/dL, compatible with chronic inflammation. A trend for high REE was observed in patients with inflammation (1865 ± 216 kcal/d for men with CRP ≥ 0.3 mg/dL and 1584 ± 257kcal/d with CRP < 0.3 mg/dL ($p = 0.05$); 1361.4 ± 181.5 kcal/d for women with CRP ≥ 0.3 mg/dL and 1204.1 ± 238.2kcal/d with CRP < 0.3 mg/dL ($p = 0.27$). CRP was positively correlated with REE ($r = 0.41$; $p = 0.04$). In conclusion, chronic mild inflammation can increase the REE in HD patients.



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EFFECTS OF GRAPE POWDER SUPPLEMENTATION ON INFLAMMATION IN HEMODIALYSIS PATIENTS.

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Polyphenols and antioxidants anti-inflammatory have been considered pharmacological agents to combat oxidative stress in chronic diseases due the reduction in the formation of free radicals (FR). Hemodialysis (HD) patients have an imbalance between oxidant and antioxidant activity, with increased levels of FR and consequently an increase of lipid peroxidation, thereby raising the risk for cardiovascular disease (CVD). The beneficial health effects of grape juice or red wine for these patients have been attributed to the antioxidant activity of its polyphenols. Then, this study aimed to evaluate the effects of grape powder supplementation on inflammation and glutathione peroxidase levels in hemodialysis (HD) patients. Thirty-two HD patients from *CIN*, RJ, Brazil were studied and randomly into two groups: placebo group- PG (16 patients, 9 men, 52.7 ± 13.7 yrs) and experimental group EG (16 patients, 9 men, 53.0 ± 9.8 yrs). Each patient received 12g/day of powder grape with grape jelly or only grape jelly (placebo) during 5 weeks. The lipid profile, C-reactive protein (CRP) levels and glutathione peroxidase (GPx) activity were evaluated before and after supplementation (Table). The data suggest that the consumption of grape powder was effective to increase the activity of GPx and decreasing the progression the inflammation. Thus, our results indicate that grape powder plays an important role as an antioxidant agent in HD patients.

	Placebo Group		Experimental Group	
	Before	*After*	*Before*	*After*
CRP (mg/mL)	2.6 ± 0.2	2.8 ± 0.2*	2.6 ± 0.2	2.6 ± 0.2