predominance of intake of sodium added to food. The sodium content of foods was on average 1.31 ± 1.0 g / day and added 5.12 ± 5.8 g / day. The sum of dietary sodium intake and sodium added to food was 6.7 ± 6.93 g / day, showing that 73.17% (n = 30) of patients have a sodium intake above recommended for CKD (4g/day). The urinary sodium measured in the urine of 24 hours was 4.46 ± 1.69 g/24hs. Finally, the correlations between the data from food records and levels of urinary sodium are statistically significant (Pearson correlation coefficient of 0.34 and *p* 0.03).

We conclude that sodium intake in this population at risk is excessive. There was good correlation between the intake of sodium and excretion. Future studies should examine the impact of nutritional interventions aimed at reducing sodium intake in this group of patients.

http://dx.doi.org/10.1016/j.krcp.2012.04.393

70

PODOCYTE-SPECIFIC OVEREXPRESSION OF SIRT-1 INCREASES NEPHRIN IN OBESE MICE FED A HIGH-FAT DIET

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Obesity can lead to inflammation, hyperlipidemia, diabetes, hypertension, and renal dysfunction, and is also associated with proteinuria. Histopathological changes in the glomeruli in obesity were characterized by glomerulomegaly and focal segmental glomerulosclerosis. This study was designed to investigate the effect of sirtuin 1 (SIRT-1), podocyte-specific overexpressed, on nephrin levels in obese mice induced by high fat diet. SIRT-1 has been proposed as a chemotherapeutic target for type II diabetes mellitus.

After establishing the SIRT-1 transgenic mice, experimental groups were divided into following three groups: Normal diet-normal group (ND-NL), high fat diet-normal group (HFD-NL), and high fat diet-SIRT-1 group (HFD-SIRT1). The background of transgenic mice was C57BL/6. High fat diet group were fed with a high calorie diet (60%) for up to 21 weeks to examine a progressive development of obesity. Body weight, 6 hours fasting blood glucose, and HbA1c were regularly measured. Albumin-Creatinine Ratio (ACR) in 24 hours urine was measured 21 weeks after the experiment. The expression levels of SIRT-1 and nephrin in the kidney by using western-blot and RT-PCR were compared.

With repeated measures ANOVA test, both high fat diet groups were showing that the body weight was significantly higher than normal diet group ($P < 0.0001$) and showing that 6 hours fasting blood glucose was also significantly different ($P < 0.05$). Although statistically not different, urinary ACR of the HFD-SIRT1 group was lower than the HFD-NL group ($P = 0.09$). The nephrin protein expression in the HFD-SIRT1 group was significantly increased than the HFD-NL ($P < 0.05$). The nephrin mRNA level in the HFD-SIRT1 group showed a tendency to increase compared with the HFD-NL group.

Taken together the results, deterioration of the kidney disease caused by obesity and hyperglycemia could be prevented by increasing the level of the nephrin expression through SIRT-1 activation. SIRT-1 may have the ability to protect the podocyte from injuries caused by obesity and hyperglycemia.

http://dx.doi.org/10.1016/j.krcp.2012.04.394

71

AMINO ACID REMOVAL DURING HEMODIALYSIS OF PATI-ENTS WHO HAD UNDERGONE INTRADIALYTIC PAR-ENTERAL NUTRITION.

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Background: Hemodialysis removes solutes uniformly according to their molecular weight. During each hemodialysis session, 6–8 g of amino acids are reportedly removed into the dialysate. Little is known about the amount of amino acids removed from those who have undergone intradialytic parenteral nutrition (IDPN).

Objective: We measured amino acid amounts prospectively during hemodialysis treatment.

Methods: We used 200 ml of 7.2% amino acid solution (Kidmin^{TM}), 200 ml of 50% glucose, and 20% of lipid emulsion as IDPN fluid. Blood samples were collected at the beginning and end of each session. The dialysate portion was also collected.

Results: Six patients were included in this study after providing written informed consent. The amount of amino acids removed during hemodialysis sessions was calculated as 9.1 ± 1.4 g, which was less than that infused as IDPN. The profiles of the removed amino acids showed that the amount removed was less than that within IDPN. However, for tyrosine and alanine, hemodialysis treatment removed more amino acids than that infused as IDPN, as well as amino acids that were not IDPN solution constituents. During a 2-week follow-up period, no significant change in amino acid profiles was observed.

Conclusions: IDPN entirely supplemented the removed amino acids, although some amino acids were not restored.

http://dx.doi.org/10.1016/j.krcp.2012.04.395

72

RENAL DIETITIANS LACK TIME AND RESOURCES TO COLLECT AND ANALYZE DIETARY INTAKE DATA

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Previous research indicated that renal dietitians lack the time and computer software to implement the KDOQI nutrition guidelines for assessing dietary intake. This study used an online survey to determine the frequency and method of collecting and analyzing dietary intake data among renal dietitians in the USA and overseas.

The link to the survey was emailed to the members of the RenalRD listserve (n=2077), the International Society of Renal Nutrition and Metabolism (n=93), the Academy of Nutrition and Dietetics Renal Practice Group (n=2362), and the National Kidney Foundation Council on Renal Nutrition (n=1491). Only currently practicing renal dietitians were asked to respond; 599 usable responses were received. A response rate cannot be calculated due to membership overlap between the 4 organizations, although individuals were asked to answer only once. Respondents were 99% female, 91% worked in the USA, 45% had a M.S. degree or higher, and 21% were Board Certified Specialists in Renal Nutrition. Dietitians worked mostly in dialysis (hospital based facility 30%, Fresenius 18%, DaVita 17%) and 5% worked in a pre-dialysis CKD clinic. Median patient load was 120/Full Time Equivalent (inner quartile range 100-150). Dietitians reported that they collected dietary intake data most frequently when labs were abnormal (70%), yearly (41%), and at the first visit only (35%). They did not collect intake data more frequently due to lack of time (42%) and not having analysis software (24.9%). Only 10% of renal dietitians reported that the frequency of diet analysis was determined by following the KDOQI guidelines, while 58.5% reported deciding on their own when to collect data. The most common methods of data collection were the "typical day" recall (50%) and the 24-hour recall (37%). Only 8% reported using a 3-day food record (as recommended by KDOQI). Methods of diet analysis were "estimation in my head" (62%), "calculate by hand" (25%), computer software (6%) and internet analysis sites (7%).

These data show that most dietitians are not following the KDOQI nutrition guidelines for frequency or method of diet analysis, and new, inexpensive, and rapid methods of diet assessment must be explored.

http://dx.doi.org/10.1016/j.krcp.2012.04.396

73

ONLINE NUTRITION ALGORITHM FOR HEMODIALYSIS PATIENTS IMPROVES DIETITIAN-PATIENT INTERACTIONS

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The purpose of this study was to determine the usability of an online nutrition algorithm for hemodialysis patients by surveying a group of dietitians testing the algorithm. Subjects were invited to take 2 different online surveys, one at month 3 ($n=22$) and one at month 6 ($n=14$). JMP version 9.0.2 was used for analysis and significance was set at $p < 0.05$.

There was a 73% response rate for survey 1 with a mean of 8.5 ± 4.5 patient visits using the algorithm (range 0-16). Forty-five percent of respondents were from the US, and 55% worked in a chain-based outpatient dialysis facility. Seventy-two percent reported that it was harder than expected to use the algorithm, with half mentioning the time to enter data as a main difficulty. One dietitian used a computer directly at chair-side; 41% thought that using a computer at chair-side would make the process easier or much easier, while 36% thought it would be harder or much harder. Fifty percent thought using the algorithm improved their patient interactions while 41% saw no change. Thirty-six percent felt the algorithm was logical and/or easy and 36% were neutral. Dietitians more experienced with the algorithm were more likely to rate it as logical (ns).