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Interpreting Research for the Kidney Patient - July, 2006

¹ Prakash S, Pande DP, Sharma S, Sharma D, Bal CS, Kulkarni H. Randomized, double-blind, placebo-controlled trial to evaluate efficacy of ketodiet in predialytic chronic renal failure. *J Ren Nutr.* 2004 Apr;14(2):89-96.

² Teplan, V. Importance of Keto Acid Therapy in Diabetic Nephropathy. XIII International Congress on Nutrition and Metabolism in Renal Disease, Merida, Yucatan, Mexico. Mar 2, 2006

³ Owen WF Jr, Lew NL, Liu Y, Lowrie EG, Lazarus JM. The urea reduction ratio and serum albumin concentration as predictors of mortality in patients undergoing hemodialysis. *N Engl J Med.* 1993 Sep 30;329(14):1001-6.

Dietitians are always trying to get kidney disease patients to eat more protein. Dr. Walser always told me that the protein needs of a kidney patient were oxymoronic – the kidney patient needs more protein but more protein hurts the kidney patient's kidneys. You can fix this when you take your amino acid supplement. The essential amino acids provide your body the building blocks of proteins without the garbage (and consequent kidney damage) produced when your body has to digest protein.

A recent paper¹ confirms this by testing groups of patients who had GFR's of 28 and serum creatinine levels of 2.3. All of the patients had their blood pressure controlled by using ACE inhibitors (ACEi) which Dr. Walser discusses in chapter 9 and we discussed in our April, 2006, Newsletter.

The patients used the diet and supplements Dr. Walser recommended or alternatively they had a diet with twice as much protein as allowed by Dr. Walser. So the Walser diet group got 20-27 grams of protein per day plus the Essential Amino Acid supplement and the high protein group got 40-54 grams of protein per day.

The results showed that the Walser diet group did much better. In fact, the group that didn't follow the Walser recommendations and took in more protein without the EAA supplement showed a decreased kidney function with their GFR going down by nearly 50% in one year. Their creatinine increased by 50% (to 3.5).

What does that mean in terms of avoiding dialysis? It means that the group who ate protein rather than take supplements were a little over a year away from going on dialysis, while the group who took supplements were not progressing towards dialysis at all!

There was also a decrease in the serum albumin of the group who ate additional protein whereas that did not occur in the group taking supplements. This research supports that which Dr. Teplan² presented earlier this year in Mexico. The difference is that Dr. Teplan used the same amount of protein as this trial used in the high protein group. In both papers, the amino acid supplements were the difference in progression to dialysis and non-progression.

The cost of not taking the EAA supplement as Dr. Walser advises is unquestionable progression toward the time dialysis is needed with a lower serum albumin level than possible with the EAA supplement. You will recall that if you have a serum albumin level less than 4, the risk of death in the first year of dialysis increases 151%. If it's less than 3.5, the risk of death in the first year of dialysis increases 313%. If it's less than 3.0, the risk increases 708%.³

On the bright side, if you stick to your diet, take your ACEi to control high blood pressure and take your EAA, this study showed no progression! Once again, the data is confirmed in another small trial which indicates these items are the keys to your health in coping with kidney disease.