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*Interpreting Research for the Kidney Patient* - April, 2006

<sup>1</sup>Gansevoort RT, de Zeeuw D, de Jong PE. Additive antiproteinuric effect of ACE inhibition and a low-protein diet in human renal disease. *Nephrol Dial Transplant.* 1995;10(4):497-504.

<sup>2</sup>Locatelli F, Del Vecchio L. How long can dialysis be postponed by low protein diet and ACE inhibitors? *Nephrol Dial Transplant.* 1999 Jun;14(6):1360-4.

Many of you may have heard your doctor say that the MDRD study showed that a low protein diet didn't help slow the progression of kidney disease. A reason this may have occurred was demonstrated after the close of the study. Both ACE inhibitors (ACEi) and a low-protein diet (LPD) are reported to reduce urinary protein excretion in renal disease, but the two combined have better results than expected by using either alone. ACEi were just being introduced at the time the MDRD was started and no data was taken on those who might have been prescribed an ACEi during the study. Shortly after those studies were completed, Gansevoort obtained his very interesting results on the combination of ACEi and the low protein diet.<sup>1</sup>

In the Gansevoort study, LPD (40 grams of protein per day) decreased protein in the urine by 17% (although this ranged from -63% to +1% depending on how strictly the patients stayed on the diet). ACEi treatment lowered protein in the urine by 19%. When the two treatments were combined, the decrease in urine protein ranged from 49% to 55%. As we said in our last newsletter, **all** patients with renal disease should check with their physician to be sure you are on an ACEi for blood pressure control. Enalapril was the drug used in the Gansevoort study but others were listed last month's newsletter. For those of you who are diabetic, this information is extremely important as you may reduce the amount of pain in your hands and feet due to diabetic nephropathy.

Clearly the results of a few patients in the control group for the MDRD who were using ACEi would mess up the data since they would do as well as those on the LPD. Since the LPD lowers blood pressure on its own, it is much more likely that patients in the control group would have been prescribed ACEi. Unfortunately, no study of this question was made, providing one more problem with MDRD.

"How long do I have?", is the most frequently asked question from kidney patients. The answer was predicted by Locatelli<sup>2</sup> based on the data in 1999 and he calculated that if you started early (urine protein of 1 gram or less) and maintained good blood pressure control with an ACEi, you could "double the dialysis-free time" (as much as 12 years). Once again, a key was protein intake and how rigidly a patient would adhere to a low protein diet. Good adherence could provide even longer "dialysis-free time."

As we pointed out last month, the newest research is using a modified protein diet (40 grams per day) because of the difficulty in staying on the LPD recommended by Walser (20 grams of protein per day). This is coupled with strict blood pressure control using an ACEi.

A note about costs. After this issue, we are going to purge all names from our mailing list that are not current customers. To all of you, best wishes in maintaining your health.