

<sup>1</sup> Early detection and treatment of renal disease in hospitalized diabetic and hypertensive patients: important differences between practice and published guidelines. McClellan WM, Knight DF, Karp H, Brown WW. *Am J Kidney Dis.* 1997 Mar;29(3):368-75.

<sup>2</sup> Low protein diets delay end-stage renal disease in non diabetic adults with chronic renal failure. Fouque D, Wang P, Laville M, Boissel JP. *Cochrane Database Syst Rev.* 2001;(2):CD001892.

<sup>3</sup> Low-protein dietary therapy in patients with chronic kidney disease Cianciaruso B, Bellizzi V, Brunori G, Cupisti A, Filippini A, Oldrizzi L, Quintaliani G, Santoro D. *G Ital Nefrol.* 2008 Sep-Oct;25 Suppl 42:S1-2.

<sup>4</sup> Low-protein diet in Italy today: the conclusions of the Working Group from the Italian Society of Nephrology. Cianciaruso B, Bellizzi V, Brunori G, Cupisti A, Filippini A, Oldrizzi L, Quintaliani G, Santoro D. *G Ital Nefrol.* 2008 Sep-Oct;25 Suppl 42:S54-7.

The difference in what US physicians should be telling patients about their kidney function and what they do is appalling. One of the most disheartening medical papers ever published about the treatment of kidney failure in the US concerned the lack of warning given by physicians at a number of hospitals, medical school teaching facilities and clinics about high creatinine levels (above 1.5) or protein in the urine (1+ on a dipstick - greater than 300 mg). None of the charts reviewed showed that the patients had been told they had kidney failure, nor did they warn the patients about taking non-steroidal anti-inflammatories (things like aspirin, ibuprofen, naproxen). In fact nearly 10% of the patients were given prescriptions for this class of drugs.<sup>1</sup>

In 2000, a group of French nephrologists looked at all the trials that had been done on the use of a low protein diet (0.6 g of protein per kg of body weight – 40 g of protein per day) and the supplemented very low protein diet (0.3 g of protein per kg of body weight – 20 g of protein per day) to determine whether there was value to these treatments. They examined “renal death” which they defined as being the need for starting dialysis, the death of a patient or the transplantation of a kidney during the trials.

The results were quite stunning. Reducing protein intake in patients with chronic renal failure reduced the occurrence of renal death by about 40% as compared with larger or unrestricted protein intake. Their conclusion was that the use of dietary restriction of protein should “be warmly recommended to patients.”<sup>2</sup>

As we reported in our May IRKP, the Swedes have adopted this recommendation heartily with over 50% of the nephrology clinics recommending a supplemented very low protein diet. This paper also resulted in the formation of a group in Italy to study this recommendation more thoroughly.<sup>3</sup> The message did not reach the US where 0% of the nephrology clinics “warmly” recommend this treatment.

The Italian group has published its conclusions.<sup>4</sup> They point out that “Many studies confirm that reducing the dietary intake of proteins improves uremia as well as acid-base and phosphorus disorders without exposing the CKD patient to the risk of malnutrition.” In our own experience over the last 8 years, the reduction in creatinine levels experienced by virtually all of the patients beginning this diet is about 0.5 (or in Canadian units 44) within the first month of treatment followed by stabilization of the creatinine level. Some have experienced a drop of as much as 4 units (from 6.2 to 2.1 in one case). This has been followed by stabilization for one or more years (in one case 14 years).

The Italians confirm the French study by saying, “The possibility of delaying renal death and the start of dialysis by almost one to two years is also recognized.” Their recommendation is a supplemented very low protein diet for all patients with a glomerular filtration rate (gfr) less than 25 mL/min (a creatinine level of about 2.5 corresponding to CKD stages 4 and 5). They do recommend that “Some situations may require an earlier switch to a low-protein diet, e.g., high proteinuria, renal function worsening at more than 5 mL/min/year, diabetes, and metabolic decompensation [i.e., acidosis].”

Since it is also known that the rate of progression of kidney failure can be slowed, it only makes sense to start at an earlier level if you have an earlier stage of kidney failure. Although most physicians in the US do not share this information with their patients, because you are receiving this newsletter, you have the knowledge to delay “renal death” significantly. Don’t give up the fight – stay on the diet and take your essential amino acid supplements.