Sleeping through dialysis: No nightmare for kidney patients

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Dialysis takes hours of kidney disease patients' time several days a week, so why not do it at night while sleeping? Overnight dialysis is more convenient for some patients and offers significant benefits over shorter daytime treatments, according to a study appearing in an upcoming issue of the *Clinical Journal of the American Society of Nephrology* (CJASN). The findings indicate that overnight dialysis is a viable alternative for patients with irreversible kidney disease, particularly in dialysis clinics where there are constraints on time and resources.

Dialysis removes waste products such as phosphate and urea from the blood, usually in three to five hours of treatments three days a week. Unfortunately, even this difficult schedule may not be frequent enough to maintain many patients' health. Some clinics offer an alternative: three weekly overnight dialysis sessions lasting six hours or more.

To test the effectiveness of this alternative schedule, Dr. Joanna Ruth Powell (Western Infirmary, United Kingdom) and her colleagues compared the health of patients who received long overnight dialysis sessions with those who received conventional dialysis during the day. During 10 years of study, 146 patients in their clinic chose long overnight dialysis (approximately 11% of their dialysis patients). Patients ranged vastly in age with 30 over the age of 70 years. The overnight therapy was well tolerated with only a third of patients converting back to conventional dialysis after an average of approximately two years, mostly for preferential rather than medical reasons.
The investigators studied various health parameters of 106 of their patients, with equal numbers receiving overnight dialysis and conventional dialysis (for at least one year). The patients who underwent overnight dialysis had lower rates of anemia and reduced levels of urea in their blood.

Previous studies have found that overnight dialysis also reduces patients' blood pressure, blood phosphate levels, and risk of premature death compared with conventional dialysis. This study did not observe these benefits, however.

The researchers concluded that long overnight dialysis is a practical way for clinics to offer longer dialysis sessions that are well tolerated by most patients with kidney disease.

More information: The article, entitled "Ten Years Experience of In-Centre Thrice Weekly Long Overnight Hemodialysis," will appear online at cjASN.asnjournals.org/ on May 21, 2009, doi 10.2215/CJN.06651208.

Source: American Society of Nephrology (news : web)