Exercise provides clear benefits for patients with chronic kidney disease

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Simple exercises can help improve the health of patients with kidney disease, according to studies that will be presented at ASN Kidney Week 2014 November 11-16 at the Pennsylvania Convention Center in Philadelphia, PA.

Heart disease is the leading cause of death in patients with chronic kidney disease (CKD). Because exercise capacity is significantly reduced in CKD patients, Sharlene Greenwood, MD (King's College Hospital, in London) and her colleagues examined the effect of 12 months of exercise training on kidney function and measures of heart disease risk in patients with progressive CKD stages 3-4. For the study, 20 patients were randomized to a rehabilitation group (REHAB, n = 10) that received exercise training (3 times per week) or standard care (UC, n = 10). A total of 18 participants completed the study (8 from the REHAB group and 10 from the UC group).

The researchers found that 12 months of exercise-based rehabilitation significantly slowed the rate of kidney function decline and improved cardio-respiratory fitness compared with standard care. "Exercise-based rehabilitation has the potential to be a kidney-protective therapy for patients with progressive stages 3-4 CKD, and larger studies are planned," said Dr. Greenwood. "Exercise, besides protecting the kidneys, also will improve fitness, general health, and quality of life and has the potential to reduce cardiovascular risk, a major cause of mortality and morbidity in patients with CKD."

In another study, Francesca Mallamaci, MD (National Research Council Institute of Clinical Physiology, in Italy) and her colleagues tested the effectiveness of a low-intensity, easy-to-implement, home exercise program on physical performance in dialysis patients. For the EXCITE trial, 151 patients were instructed to follow the cadence of an inexpensive metronome while walking, while 146 patients maintained their normal physical activity.

After 6 months, performance in a 6-minute walking test improved in the exercise group (with participants walking 41 meters more in that amount of time), but remained unchanged in the control group. A 'sit to stand' test also improved in the exercise group but not in the control group. "A personalized, low-intensity home exercise program improves physical performance in dialysis patients," the investigators concluded. "The simplicity and adaptability of the program make it suitable to the needs of a high-risk population such as the dialysis population."

More information: Studies: "Exercise Training Improves Kidney Function, Cardiovascular Health, and Cardio-Respiratory Fitness in Patients with Progressive Stage 3-4 Chronic Kidney Disease: A Randomised Controlled Study" (Abstract TH-PO722)

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