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EMBARGOED FOR RELEASE UNTIL 5:00 PM ON NOVEMBER 19, 2009

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SLEEP APNEA MAY CAUSE HEART DISEASE IN KIDNEY TRANSPLANT PATIENTS

Condition Increases Risk of High Blood Pressure and Heart Problems in this Patient Population

Washington, DC (November 16, 2009) — Sleep apnea is common in individuals who receive a kidney transplant and is associated with increased risk of high blood pressure, heart disease or stroke, according to a study appearing in an upcoming issue of the *Clinical Journal of the American Society Nephrology* (CJASN). Researchers found that kidney transplant patients are just as likely to have this sleep disorder as dialyzed kidney disease patients who are on the transplant waiting list. Therefore, both types of patients who have sleep apnea should be considered at high risk for developing serious heart-related complications.

Cardiovascular disease is the most common cause of death in individuals who receive kidney transplants, and doctors monitor transplant recipients for high blood pressure, or hypertension, and other signs of heart trouble. Obstructive sleep apnea occurs when an individual stops breathing momentarily during sleep due to obstruction of the airway and has been linked to hypertension. Miklos Zsolt Molnar, MD, PhD (Semmelweis University, Budapest, Hungary), and his colleagues studied the prevalence of sleep apnea in kidney transplant patients and the effects the condition had on their cardiovascular risk.

The study included 100 transplant recipients. The researchers found that moderate-to-severe sleep apnea occurred in one of every four individuals. This rate was similar to that seen in a group of dialyzed kidney disease patients who were waiting for a transplant. In addition, kidney transplant patients with sleep apnea were more than twice as likely to be taking three or more anti-hypertensive drugs as patients without the sleep disorder but still displayed higher blood pressure than patients who slept normally. As seen in the general population, being obese increased patients' risk of developing sleep apnea. When risk scores were calculated to predict patients' risk of developing heart disease or experiencing a stroke, kidney disease patients who had sleep apnea had twice the risk as patients without apnea.

MORE

"We propose that sleep apnea is a new risk factor for hypertension and cardiovascular events in kidney transplanted patients," said Dr. Molnar. "Physicians should screen transplant patients for obstructive sleep apnea and offer appropriate treatment," the authors explain.

This study was supported by grants from the National Research Fund (OTKA) (TS-049785, F-68841), the Hungarian Kidney Foundation, and the Foundation for Prevention in Medicine. Study co-authors include Alpar Sandor Lazar, PhD, Anett Lindner, MD, Katalin Fornadi, MD, Maria Eszter Czira, MD, Andrea Dunai MD, Rezso Zoller, MD, Andras Szentkiralyi, MD, Laszlo Rosivall, MD, PhD, Dsc, Marta Novak, MD, PhD, Istvan Mucsi, MD, PhD (Semmelweis University, Budapest, Hungary), and Colin Michael Shapiro, FRCPC, MBBS, PhD (University of Toronto, Canada).

The article, entitled "Sleep Apnea Is Associated with Cardiovascular Risk Factors among Kidney Transplant Patients," will appear online at http://cjasn.asnjournals.org/ on Thursday, November 19, 2009, doi 10.2215/CJN.04030609.

Founded in 1966, the American Society of Nephrology (ASN) is the world's largest professional society devoted to the study of kidney disease. Comprised of 11,000 physicians and scientists, ASN continues to promote expert patient care, to advance medical research, and to educate the renal community. ASN also informs policymakers about issues of importance to kidney doctors and their patients. ASN funds research, and through its world-renowned meetings and first-class publications, disseminates information and educational tools that empower physicians.

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