Waist Size Linked to Kidney Disease in Diabetics

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Patients with type 1 diabetes and central obesity had a significantly increased risk of developing microalbuminuria in a study of 1,105 patients.

Investigators found that each 10-cm (4-inch) increase in waist circumference increased the risk of microalbuminuria by 34%. After almost 6 years of follow-up, the relationship remained significant after adjustment for other risk factors, including intensive insulin therapy, Dr. Ian H. de Boer and his colleagues at the University of Washington in Seattle reported.

They evaluated microalbuminuria levels of 1,105 patients with type 1 diabetes who had normal albumin secretion at baseline who were a part of the Diabetes Control and Complications Trial (DCCT) and were followed in the Epidemiology of Diabetes Interventions and Complications (EDIC) study, (J. Am. Soc. Nephrol. 2006 Dec. 6 [Epub doi:10.1681/ASN.2006040394]). DCCT was designed to study intensive insulin therapy versus conventional insulin therapy in patients with type 1 diabetes. At the end of that trial, all participants were invited to join the observational EDIC study.

During a median of 5.8 years of follow-up, 93 patients (8.4%) developed microalbuminuria. Incidence of microalbuminuria increased with waist circumference, and was greater in men than in women (10.7% vs. 5.8%) and in those who had been assigned in DCCT to conventional insulin therapy rather than intensive therapy (12.8% vs. 4.5%). At a median 8-year follow-up, creatinine clearance had declined by a mean of 0.34 mL/min per 1.73 m^2. Waist circumference and change in creatinine clearance were not associated in unadjusted or adjusted analyses.

The investigators said further study is needed to corroborate the hypothesis that losing weight might help cut the risk of microalbuminuria in type 1 diabetics. ■