

Findings

Faster Resolution of UACR After Bariatric Surgery in Diabetic Teens

Among patients with type 2 diabetes undergoing bariatric surgery, adolescents have earlier resolution of elevated urinary albumin to creatinine ratio (UACR), compared to adults, reports a study in *Kidney International*.

The researchers analyzed 161 adolescents with severe obesity who underwent Roux-en-Y gastric bypass surgery. For comparison, they looked at a group of 396 adults undergoing gastric bypass—all with a reported history of obesity at age 18 or younger. Before gastric bypass, type 2 diabetes was present in 14% of the adolescents and 31% of the adults. For patients with preoperative type 2 diabetes, the adolescents and adults were similar in terms of preoperative weight, body mass index (BMI), and glycated hemoglobin. Among those without preoperative diabetes, the adolescents had higher weight, BMI, and insulin levels.

Renal outcomes 5 years after bariatric surgery were compared between age groups, focusing on spot UACR measurement and estimated glomerular filtration rate measured by serum creatinine and cystatin C. Analyses were stratified by the presence of preoperative type 2 diabetes.

Before surgery, the prevalence of elevated UACR was 22.5% in adolescents with type 2 diabetes, compared to 9.0% in diabetic adults. Follow-up data showed earlier improvement in elevated UACR in teens with preoperative diabetes compared to adults. In adolescents, adjusted prevalence of elevated UACR decreased from baseline to 1 year, remaining stable thereafter. In adults, adjusted prevalence of elevated UACR was stable from baseline to year 4, with a significant decline in year 5.

In contrast, there was no difference in UACR in response to gastric bypass between adolescents or adults without preoperative diabetes. Teens with preoperative type 2 diabetes had a higher prevalence of hyperfiltration (prevalence ratio 2.36), which persisted across the 5-year study period.

The study is the first to compare kidney outcomes after bariatric surgery in adolescents versus adults. “Adolescents with pre-operative type 2 diabetes experienced a more precipitous resolution of elevated UACR following gastric bypass compared to their adult counterparts,” the researchers write.

The age-related difference in UACR response after bariatric surgery adds to previous evidence that adolescents have “greater plasticity for comorbidity reversal.” Further studies with extended follow-up are needed to clarify the risks and benefits of bariatric surgery for severely obese adolescents, with and without type 2 diabetes [Bjornstad P, et al. Five year kidney outcomes of bariatric surgery differ in severely obese adolescents and adults with and without type 2 diabetes. *Kidney Int* 2020; DOI: <https://doi.org/10.1016/j.kint.2020.01.016>]. ■

For Older Adults with Kidney Failure, Dialysis Linked to More Hospital Days

In older adults with kidney failure, the decision to undergo maintenance dialysis is associated with increased hospital and ICU days and decreased use of inpatient palliative care, reports a study in *JAMA Network Open*.

Using Alberta health data, the researchers identified 968 older adults (65 or older) with kidney failure: 489 men and 479 women, median age 78.5 years. All had at least two consecutive outpatient estimated glomerular filtration rate (eGFR) meas-

urements of less than 10 mL/min/1.73 m² over at least 90 days—a level at which patients and physicians discuss and decide whether to pursue maintenance dialysis. Time-varying exposure to maintenance dialysis was analyzed for association with cumulative hospital days, with adjustment for covariates. A wide range of secondary outcomes were analyzed as well.

Maintenance dialysis was performed in 57.5% of patients. Those not receiving dialysis were more likely to be female, older

(median age 83.6 years), to have higher comorbidity, and to reside in a long-term care facility.

Patients receiving maintenance dialysis spent more days in the hospital, incidence rate ratio (IRR) 2.47: the typical patient treated with dialysis had an additional 22 hospital days per year. There was no increase in the rate of hospital admissions, but patients in the maintenance dialysis group had a higher rate of ICU admissions: 98.37 versus 54.51 per 1000 hospitaliza-



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