

ABSTRACT: PUB622

Oxalate Nephropathy Leading to ESRD Following Roux-en-Y Gastric Bypass

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BACKGROUND

Hyperoxaluria is a common and underappreciated complication of gastro-intestinal bypass surgeries. Calcium oxalate nephropathy is known to occur following jejunioileal bypass, and case series have reported oxalate nephropathy after Roux-en-Y gastric bypass. Here we report a case of calcium oxalate nephropathy occurring after Roux-en-Y gastric bypass for gastric adenocarcinoma leading to severe renal failure and end stage renal disease and outline potential strategies for prevention of future events.

METHODS

An 83-year-old male with hypertension, type 2 diabetes mellitus, systolic heart failure (EF 45%), stage III CKD, and gastric adenocarcinoma status-post gastrectomy and Roux-en-Y esophagojejunostomy four months prior was admitted to our hospital with acute renal failure. He described new weakness, dysphagia, and loose stool. His creatinine was 9.3 mg/dL and arterial pH was 7.07. Renal ultrasound demonstrated a left-sided 1.3 cm non-obstructing stone. Urinary sediment showed rare renal tubular epithelial cells and granular casts. ANA, ANCA, C3, C4, SPEP, and UPEP were normal. He rapidly developed oliguria and uremia and was initiated on hemodialysis. Renal biopsy demonstrated advanced interstitial fibrosis, tubular atrophy, and calcium oxalate and calcium phosphate deposition. He never recovered renal function and was discharged on dialysis.

CONCLUSION

While hyperoxaluria is known to occur after gastric bypass, oxalate nephropathy and severe renal failure are less frequently reported. Our patient developed ESRD four months after surgery. Prior series have reported acute renal failure developing at a mean of thirty-three weeks after surgery. One study reported progression to ESRD within three months of identification of renal failure in 72% of patients. We identified several factors that may have contributed to this rapid and severe course including underlying CKD, diuretic use, post-operative AKI, diarrhea, and poor oral intake. In light of this case and prior reports, we propose the following considerations for patients undergoing gastric bypass: a) heightened clinical suspicion post-operatively, b) patient and provider education on the risks of hyperoxaluria and oxalate nephropathy, particularly in states of volume depletion, c) close monitoring of volume status and post-operative renal function, and d) early referral to nephrology, particularly for at-risk patients.

Drury E et al. J Am Soc Nephrol 28, 2017:1122.