Incidental Findings of Renal Cell Carcinoma in Bariatric Surgery Patients

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BACKGROUND

Bariatric surgery candidates undergo extensive pre-operative assessment and preparation, including: psychosocial evaluation, nutrition evaluation, weight loss planning, tobacco cessation counseling, medical clearance, and imaging.
Pre-operative abdominal ultrasounds are performed to measure the liver and to evaluate for cholelithiasis. However, this may not always satisfactorily reveal pathology within the retroperitoneum, such as renal masses. Patients who have an increased body mass index (BMI) have been associated with a relative risk of 1.5 to 1.8 for renal cell carcinoma (RCC).

CASE 1

The patient was a 42-year-old Caucasian male with hypertension (HTN), obstructive sleep apnea (OSA), insulin-dependent diabetes mellitus (DM), and a BMI of 45.0 kg/m^2 who underwent a laparoscopic Roux-en-Y gastric bypass. There were no abnormal findings on pre-operative abdominal ultrasound. One month post-operatively, he presented with left upper quadrant abdominal pain. Computed tomography (CT) was performed and revealed a 5.8 x 5.9 x 6.2 cm left renal mass. He underwent robotic hand-assisted left radical nephrectomy with retroperitoneal lymph node dissection. Pathology revealed Grade 2 clear cell RCC.

CASE 2

The patient was a 46-year-old Caucasian male with HTN, insulin-dependent DM, OSA, osteoarthritis, asthma, history of former 30-pack year tobacco use, and a BMI of 55.4 kg/m^2 who underwent assessment for Roux-en-Y gastric bypass when abdominal ultrasound revealed a complex 8.3 x 5.1 x 7.2 cm right renal mass. After robotic right radical nephrectomy, pathology revealed Grade 2 clear cell RCC.

Should We Include Renal Ultrasounds in Pre-Operative Assessments for Bariatric Surgery?



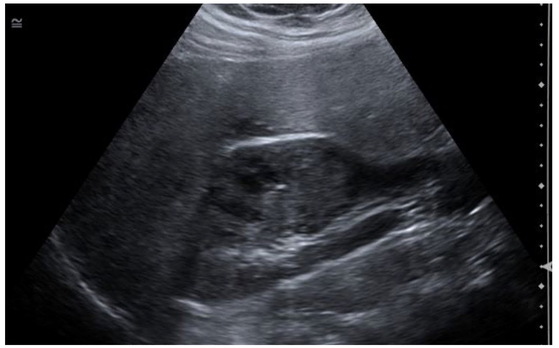


Figure (left) – Case 1. Gross specimen of left renal mass measuring 5.8 x 5.9 x 6.2 cm.
Figure (right) – Case 2. Abdominal ultrasound of an 8.3 x 5.1 x 7.2 cm right renal mass.

DISCUSSION

The standard of care for pre-operative assessment and preparation for bariatric surgery patients does not include routine dedicated renal ultrasounds. Given the increased risk of development of renal cell carcinoma within the bariatric population, consideration should be made to incorporate dedicated renal ultrasounds in patient's pre-operative assessments if pre-operative CT of the abdomen and pelvis is not performed.

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