COMMENTARY

Minimally invasive partial nephrectomy feasible in morbidly obese?

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Reynolds et al retrospectively review the results of 184 patients undergoing either laparoscopic (n = 109) or robotic-assisted laparoscopic (n = 75) partial nephrectomy.¹ Their aim was to assess the feasibility of these approaches in patients with class I to III obesity. The median body mass index was 31, tumor diameter 2.9 cm, operative time 218 minutes and ischemic time 23.5 minutes, and the two high volume surgeons involved were able to effectively resect these small renal masses with a median blood loss of 150 mL and a positive surgical margin rate of 3.3%.

Obesity, even class III obesity, did not lead to a decrement in perioperative or pathologic outcomes, while RENAL nephrometry score greater than or equal to 8 did. The authors recommend that morbid obesity not be an exclusionary criteria for minimally invasive partial nephrectomy. As the two surgeons involved in this study had relatively high surgical volumes, averaging nearly 11 and 9 cases per year, they appropriately caution the lower volume and less experienced surgeon. Given their laparoscopic cohort was earlier in a sequential series and comprised of easier tumors with lower RENAL nephrometry scores, we are unable to determine the relative safety and efficacy of the two surgical approaches or the safety of laparoscopic partial nephrectomy in patients with nephrometry scores > 6.

Should these or other robotic surgeons further treat larger or increasingly complex renal tumors, it is important that randomized trials against open partial nephrectomy be performed to determine if the results of robotic partial nephrectomy, and at what nephrometry score and surgical volume threshold, justify the less invasive approach.

References

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^{1.} Reynolds C, Hannon M, Lehman K, Harpster LE, Raman JD. An obese body habitus does not preclude a minimally invasive partial nephrectomy. *Can J Urol* 2014;21(1):7145-7149.