

LESS Partial Nephrectomy of Two Synchronous Tumors

Introduction and Objective: Laparoendoscopic single site surgery (LESS) represents one of the hugest advances on minimally invasive surgery. Expanded indications of conventional laparoscopic partial nephrectomy include larger and more complex tumors, including those in hilar or central locations and multiple tumors. We present a video of a LESS partial nephrectomy of two synchronous tumors.

Materials and Methods: A 62 year old male, presenting two synchronous tumors of the right kidney with 3 and 1 cm of diameter on abdominal CT, was submitted to a partial nephrectomy using an umbilical single incision. Separate excision of the two lesions was made. A multi-instrument access trocar comprised of 4 gel-valved port sites (QuadPort™; Olympus) was used to transperitoneal abdominal access. Straight and curved rigid laparoscopic instruments were used. Warm ischemia time was 28 minutes and surgery time was 160 minutes. Total blood loss was 300ml.

Results: There were no peri or post-operative complications. The patient was discharged on 3rd post-operative day with no need for analgesia. Pathologic examination revealed two renal cell cancers, chromophilic (type 1, Fuhrman 2), with 3.5 and 0.8cm. The tumors were both staged as pT1a.

Conclusions: Given the proximity of channels during single port partial nephrectomy, triangulation is lost with straight laparoscopic instruments. Reduced internal mobility was also felt during surgery. LESS partial nephrectomy can be successfully performed even in complex and multiple tumors with excellent results.

To view this video, please [click here](#)