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INTRODUCTION & OBJECTIVES: Two decades after its introduction, laparoscopic radical nephrectomy is now a standard of care for amenable tumors up to stage T3, and for cytoreductive nephrectomy. The current challenge is appropriately educating practicing urologists and urology trainees in the appropriate techniques to minimize complications. As such, one obstacle is that urologists may never actually witness the most feared complications arising from a given step until they are suddenly faced with the prospect of expeditiously handling them.

MATERIAL & METHODS: Two decades after its introduction, laparoscopic radical nephrectomy is now a standard of care for amenable tumors up to stage T3, and for cytoreductive nephrectomy. The current challenge is appropriately educating practicing urologists and urology trainees in the appropriate techniques to minimize complications. As such, one obstacle is that urologists may never actually witness the most feared complications arising from a given step until they are suddenly faced with the prospect of expeditiously handling them.

RESULTS: This educational video demonstrates the performance of a conventional left laparoscopic radical nephrectomy. Pertinent complications demonstrated include splenic injury, diaphragm injury with pneumothorax, superior mesenteric artery ligation, stapler malfunction, and bile duct injury.

CONCLUSIONS: The gold standard treatment in certain upper urinary tract neoplasms is radical nephrectomy and the laparoscopic approach has demonstrated advantages compared with open approach. This unique educational video was compiled demonstrating both the proper technical maneuvers, alongside those leading to major complications. We hope this serves as a didactic tool to use in conjunction with simulator based education and hands-on live training.