Technical Considerations of Single Port Ureteroneocystostomy Utilizing da Vinci SP Platform

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OBJECTIVE
To demonstrate technical considerations of a true single port robotic assisted ureteroneocystostomy using the da Vinci SP platform (Intuitive Surgical, Sunnyvale, CA).

METHODS
We present a 34 year-old female with an obliterative right distal ureteral stricture after undergoing a total abdominal hysterectomy for benign indications. After a period of ureteral rest, the patient elected to undergo a robotic assisted ureteroneocystostomy using the da Vinci SP platform.

RESULTS
A refluxing ureteroneocystostomy was performed in 127 minutes, estimated blood loss was 20cc, and there were no complications. The infra-umbilical incision length was 25 mm. Intraoperative suction was achieved using flexible nasotracheal suction tubing passed alongside the 25 mm cannula. This was manipulated by the console surgeon with coordinated suction by the bedside assistant. A JJ stent was placed percutaneously with the assistance of a 14 gauge angiocatheter prior to completion of the anastomosis.

CONCLUSION
To our knowledge, this represents the first case of a robotic assisted ureteroneocystostomy using the da Vinci SP platform without the use of an assistant port. This approach is safe and was completed in a similar operative time to other da Vinci systems. Single port specific considerations include novel suction device placement type, percutaneous stent advancement, and needle introduction without the use of an assistant port. Potential advantages of this technique include improved cosmesis as well as enhanced visualization and dexterity of the fully jointed instruments. Future studies are needed to assess for differences in perioperative outcomes. UROLOGY 129: 236, 2019. © 2019 Elsevier Inc.