Results: 12 patients who underwent RALP were compared with a similar cohort of 12 patients who underwent LP. The robotic procedures were superior in terms of shorter operating time by 30 minutes on an average. The minimum time taken for RALP and LP were 110 minutes and 170 minutes respectively. One patient in LP group had urine leak and failed compared to none in the RALP group. The surgeon reported subjective ergonomic benefits with the use of the robot.
Conclusions: Robotic assistance helps to decrease the operative time for laparoscopic pyeloplasty and helps in better anastomosis. It seems ergonomically superior for the surgeon.

Robotic Assisted Ureteric Re-implantation with Psaos Hitch Following Iatrogenic Injury

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Introduction: The risk of injury to the ureter during an abdominal hysterectomy is estimated at 1.3% (1). This injury often occurs following ligation of the uterine vessels as the ureter crosses under the artery. We present the case of a 45 year old female who was referred with a left nephrostomy insitu following an injury to her left distal ureter during hysterectomy for a large fibroid. An initial attempted endoscopic realignment procedure was successful, but following removal of stent there was development of a vesicovaginal fistula. We present in video format our method of robotic assisted ureteric reimplantation with psoas hitch.
Methods: The ureter was mobilised proximal to healthy tissue with preservation of the adventitia. The bladder was then mobilised and a psoas hitch was performed to ensure a tension free anastomosis. The ureter was then spatulated and anastomosed into the bladder over a JJ stent.
Conclusion: This video demonstrates our technique of robotic assisted laparoscopic ureteric reimplantation with psaos hitch following iatrogenic injury to the distal ureter.

Reference

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Robotic assisted laparoscopic prostatectomy – a video review of posterior seminal vesical, vas deferens & prostate dissection technique & early outcomes in a single centre

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Introduction: Robotic assisted laparoscopic prostatectomy (RALP) yields similar oncological & functional outcomes compared to the gold standard radical retropubic prostatectomy with shorter hospital stays & less blood loss & transfusion rates. Using a teaching video, we describe our outcomes from RALPs in a single centre over an 18-month period incorporating an initial posterior dissection approach to the seminal vesicle, vas deferens & posterior prostate.
Methods: We performed 64 RALPs over an 18 month period between October 2017 & April 2019. Age ranged from 49 to 74 (median 59). Pre-op ISUP grade included grades one through five & average Prostate Specific Antigen (PSA) rates was 7.9 (0.9–46). MRI findings included T2 & T3a with an average volume of 39 cc (15–159).
Results: Perioperative outcomes showed average surgical time was 04:02 hours (3:12–5:41) with intra-op blood loss of 408 mls (20–1000 mls). A drain was left in 92% of cases (n = 59). Average length of stay was 4.7 days (2–12). There were three Clavien-Dindo 3 complications; a post-op bleed requiring embolization, a port-site hernia requiring repair and chylous ascites requiring drainage. Pathological stage ranged from T2 to T3b with an average weight of 56.11 g (24–148 g) with 13 patients (20%) with positive surgical margins. Functionally, 61% (n = 36) of patients were wearing 0–1 pads at 3–4 months and average IIEF domain A score at this period was 8.4/30.
Conclusion: RALP with an initial posterior dissection to the seminal vesicle was a safe and efficient method for controlling prostate cancer with promising functional outcomes.

Robot-assisted nephroureterectomy: Single Stage Technique including Bladder Cuff

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Background: We present our surgical technique for pure robot-assisted nephroureterectomy with bladder cuff excision (RANU) (single stage).
Objective: To demonstrate our surgical technique of a single-step RANU, not requiring repositioning or re-docking whilst using the da Vinci Xi operating system.
Materials and Methods: A brief retrospective review of all patients undergoing RANU for UTUC from March 2018 until March 2019 was performed. Cases were analysed based on patient demographics, perioperative outcomes, histopathology and short-term follow-up data.
Results: To date, 12 robot-assisted nephroureterectomies have been performed using the single-stage technique. Mean age 66.5 years (range 50.08–84.75), 8 (66.66%) male patients and 4 (33.33%) female. Three patients (25%) had received neoadjuvant chemotherapy. Mean body mass index 27.9 (21.4–38.1). 6 left-sided vs. 6 right-sided nephroureterectomies. Mean operative time of 03:45 (02:50–04:46), mean estimated blood loss 142 mls (50 mls – 300 mls). Mean catheter duration was 5.6 days (2–10). Seven tumours (58%) were high-grade, mean tumour size was 3.4 cm (1.4–15 cm). 3 patients (25%) had pT1, 3 (25%) had pT2, 2 (17%) had pT3, 2 (17%) had pTa and 2 (17%) had pT0 stage disease. Three (25%) patients had lymph node dissections, One patient had positive lymph nodes on final histology. Three patients had post-operative complications (One Grade I, and two Grade II). Mean length-of-stay was 5.5 days (2–14). No metastases noted on follow-up imaging.
Conclusions: This teaching video shows our positioning and surgical technique for single-step RANU without need for repositioning or re-docking.

Da Vinci Xi robotic partial nephrectomy for complex renal tumours: step by step approach of trans-peritoneal and retro-peritoneal technique

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Complex renal tumours may preclude a minimally invasive approach to nephron sparing surgery in some patients. We describe our

technique with da Vinci Xi robotic platform of robotic partial nephrectomy (RPN) for challenging renal tumours, including large, hilar and endophytic tumours.
Between July 2016 and March 2019, 24 patients with complex renal mass (based on RENAL nephrometry score of ≥9 and vascular anatomy) underwent RPN. Patient details were collected for age, gender, American Society of Anesthesiologists score, tumour side, number, size and location. Outcomes measured included operative time, estimated blood loss, warm ischaemia time (WIT), serum creatinine before and after surgery, length of hospital stay, transfusion rate, operative and 30-day complications.
Out of 24, 18 underwent trans-peritoneal RPN and 6 underwent retroperitoneal RPN. Three patients required open conversion after complete hilar dissection. Hilar clamping was utilized with a median warm ischemia time of 30 minutes (IQR25–45 minutes). Median blood loss was 250 ml (IQR 150–450 ml). Histopathology confirmed clear cell renal cell carcinoma (n = 14), papillary renal cell cancer (4), chromophobe renal cell carcinoma (n = 3), hybrid oncocytic tumour (n = 1), angiomyolipoma (2). All patients had negative surgical margins. Median index tumour size was 4 cm (IQR 3 –7 cm). Median hospital stay was 4 days.
Xi robotic platform facilitates tumour resection and renal reconstruction for challenging cases, offering a minimally invasive surgical option for select patients with complex tumours who might otherwise require open surgery. Robotic partial nephrectomy is a safe and feasible approach for select patients with complex renal tumours.

Robotic nephroureterectomy with bladder cuff excision using Da Vinci Xi: a video presentation of technique

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Introduction: Open ureterectomy with excision of bladder cuff has significant wound related morbidity. The laparoscopic approach was first described 1991 (1). Although it improved recovery it is technically demanding. Introduction of the Xi da Vinci robot offered a unique advantage for this procedure, without compromise of oncological outcomes (2). We report our technique and experience with single-docking robotic ureterectomy with bladder cuff excision.
Methods: The patients were positioned in lateral decubitus. The four robotic ports were placed in the usual position for nephrectomy, with port 3 sited more infero-medially. The patients underwent radical nephroureterectomy, lymph node dissection and bladder cuff excision, with one patient with previous nephrectomy undergoing a completion ureterectomy with bladder cuff excision. The bladder cuff was excised and two-layer closure of the bladder was performed using a 3/0 V-lock continuous suture. We present details of patient positioning, port placement and technique in our video.
Results: Console times ranged from 259 mins to 150 mins. Robotic assistance enabled excellent vision and exposure throughout, particularly with use of the 4th robotic arm to retract in the pelvis. Robotic intracorporeal suturing was significantly more fluid and precise with mucosa to mucosa suture placement clearly visualused. Estimated blood loss was <100mls. The drain was removed on the second day post operatively with urinary catheter on day three with no cystogram required. The length of stay four days.
Conclusion: The Xi system significantly improves nephroureterectomy for surgeon and patient. This system negates the need to undock the robot to change position.

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Robot assisted urethrolysis and fistula repair post incontinence surgery

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Aim: To highlight the benefits of robotic surgery in a case complicated by multiple previous incontinence surgeries.
Methods: This is a case of a 35 year old who was referred from another institution. She previously underwent insertion of a (TVT ™) for SUI which was complicated by mesh exposure into the vagina, and the vaginal portion of the tape was subsequently removed. She developed de novo OAB symptoms and recurrence of stress incontinence. A second TVT was inserted, this was removed one month later due to severe pain and exposure into the urethra. Three months later, she underwent insertion of a rectus fascia sling, but due to pain, and urinary retention this was also removed.
A EUA, cystoscopy was performed, revealing a hyper-elevated urethra with no mobility. There was a small urethro-vaginal fistula at the distal end of the urethra.
Following discussion, a combined vaginal and robotic approach was proposed.
During surgery the retro-pubic portions of both tapes were identified, and removed. Subsequently the urethra was released bilaterally. Then the fistulous tract was identified and dissected and the defect closed in layers, a martius flap was placed under the midurethra.
Results: A catheter was left is situ for 14 days, and post op recovery was uneventful.
Conclusion: With the increasing number of complex urogynaecology cases in the clinical setting, the robot-assisted approach allows for meticulous dissection, and excellent access to retropubic space. And at the same time, reducing hospital stay, and quicker recovery.