AB010. 215. Expanding indications of robotic urological surgeries beyond prostate—Irish experience with a dual-console Xi da Vinci surgical system

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Background: The landscape of the surgical management of urologic conditions has dramatically changed over the past 2 decades, both for benign and malignant pathologies. The benefits of robotically-assisted radical prostatectomy have been well documented but little has been published regarding the benefits of robotically-assisted urologic procedures beyond radical prostatectomy. We report our experience with a variety of non-prostatic urological procedures including first radical cystectomy for bladder cancer performed in Ireland utilizing a dual-console da Vinci Xi surgical system.

Methods: We analysed our robotically-assisted urology cases from a prospectively maintained data base. Data were collected by independent third party. The dual-console Da Vinci Xi® Surgical Robot (Intuitive Surgical Ltd., CA, USA) was utilized for all cases. The type and number of procedures were recorded, along with patient demographics, length of stay, morbidities and mortalities as per the Clavien-Dindo classification. We present our video in the lecture.

Results: A total of 103 urological procedures were performed so far in just over 24 months. The median patient age was 62. The median ASA score was 2 and postop length of stay was 4 days. There were 40 partial nephrectomies, 35 nephrectomies, 12 Anderson-Hynes pyeloplasties, 9 adrenalectomies, 5 nephron-ureterectomy with bladder cuff, 1 marsupialisation of renal cyst and 1 radical cystectomy with total abdominal hysterectomy, bilateral salpingo-oophorectomy and bilateral pelvic lymph node dissection. The median estimated blood loss was less than 100 mL. Three procedure was converted to open. Four patients experienced Clavien-Dindo grade 2 complications. There were no grade 3 or more complications.

Conclusions: Our study shows that robotic-assisted surgery can be safely implemented beyond radical prostatectomy to a wide spectrum of urological conditions requiring surgical intervention including complex procedure such as radical cystectomy with total abdominal hysterectomy, bilateral salpingo-oophorectomy, and bilateral pelvic lymph-node dissection and beyond.

Keywords: Robotic surgery; radical cystectomy; pyeloplasty; adrenalectomy

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