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قسم

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A Comparative study of Robot-Assisted Laparoscopic Intracorporeal Versus Open Urinary Diversion

Thesis

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List of Abbreviations

Abb.	Full term
AKI	*Acute kidney injury*
ASA	*American society of anesthesiologist*
ASIS	*Anterior superior iliac spine*
BMI	*Body mass index*
CBC	*Complete blood count*
CT	*Computed tomography*
DVC	*Dorsal vein complex*
ERAS	*Enhanced recovery after surgery*
GCS	*Glasgow coma scale*
ICIC	*Intracorporeal ileal conduit*
ICNB	*Intracorporeal neobladder*
ICUD	*Intracorporeal urinary diversion*
IPSS	*International prostate symptom score*
IR	*Interventional radiology*
LOS	*Length of stay*
MBP	*Mechanical bowel preparation*
MICU	*Medical intensive care unit*
MSK	*Memorial Sloan Kettering*
NBM	*Nothing by mouth*
NCDB	*National cancer database*
ORC	*Open radical cystectomy*
PLND	*Pelvic lymph node dissection*
QOL	*Quality of life*

List of Abbreviations (Cont...)

Abb.	Full term
RARC	*Robotic assisted radical cystectomy*
RC	*Radical cystectomy*
RCTs	*Randomized controlled trials*
RHQOL	*Health related quality of life*
RLESS	*Robotic laparoendoscopic single site*
SCC	*Squamous cell carcinoma*
SHIM	*Sexual health inventory for men*
SICU	*Surgical intensive care unit*
SMs	*Surgical margins*
TAP block	*Transversus abdominus plane block*
TCC	*Transitional cell carcinoma*
UAMS	*University of Arkansas for medical sciences*
UCS	*Uretero-cutaneousotomy*
UIA	*Uretero-ileal anastomosis*
UTI	*Urinary tract infection*

INTRODUCTION

Urinary tract reconstruction aiming to urine diversion after radical cystectomy for bladder cancer represents a complex process that attempts to maximize health- related quality of life (HRQOL) for patients after surgery ***(Gschwend, 2003).***

Open radical cystectomy (ORC) remains the gold standard treatment of localized muscle invasive bladder cancer and high-risk non-muscle-invasive bladder cancer, however, the use of a minimally invasive approach is advocated to reduce the morbidity and mortality associated with the open technique ***(Huang and Stein, 2007).***

Robotic surgery is being increasingly used in the treatment of high grade invasive urothelial carcinoma that requires radical cystectomy. Surrogate pathologic and early follow-up data from multiple centers suggest that the robotic approach may provide oncologic equivalence to open surgery ***(Hellenthal et al., 2010).***

Use of robotic technology allows the surgeon to perform delicate operative steps in the confined pelvic space with precision and accuracy; steps that may be difficult to perform with open or conventional laparoscopic approach ***(Rehman et al., 2011).***

Since over a decade, Menon and colleagues reported the first robot-assisted radical cystectomy (RARC). This development was much anticipated after the success of robotic technology for performing radical prostatectomy ***(Menon et al., 2003).***

Robotic cystectomy and intracorporeal urinary diversion is technically challenging. Therefore, many surgeons are still adopting the hybrid approach when performing the cystectomy using robotic assistance and completing the urinary diversions extracorporeally to shorten the operating time. Wiklund and associates have pioneered the technique of intracorporeal urinary diversion creating both neobladders and ileal conduits completely intracorporeally ***(Jonsson et al., 2011).***

Equally, Desai and Gill presented remarkable outcomes using a modification of the aforementioned technique ***(Goh et al., 2012).***

In addition, the 10-times magnification and EndoWrist technology provide an ideal platform to perform an intracorporeal urinary diversion, which would allow the procedure to be performed in a minimally invasive way, and may eventually reduce the complications of a morbid procedure. Soon after RARC, the first robot-assisted intracorporeal neobladder was reported by Beecken and colleagues ***(Beecken et al., 2003).***

Despite an early report of intracorporeal urinary diversion (ICUD), it was selectively performed. Increase in operative time, lack of expertise with the new technology, and