

Laparoscopic management of intra/extraperitoneal suprapubic port bladder injury: A case report

Kodithuwakku KASUA¹, Mathew S¹, Walker S¹, Polchleb C¹, Ravi K²

¹Western Health Melbourne, ²Gosford Hospital NSW

Objectives

To highlight the different types of suprapubic port related bladder injuries and to describe their laparoscopic management.

Case report

A 22-year-old woman was admitted to the day procedure unit for laparoscopic cystectomy for a symptomatic right ovarian dermoid. She didn't have a significant past medical or surgical history. Following administration of general anaesthetic, patient was placed on modified lithotomy position and primary port was inserted through the base of the umbilicus. The first accessory port was placed left laterally and the second accessory port was placed suprapubically under direct vision. During the insertion of the suprapubic port a bladder injury was suspected. Cystectomy was done and the surgery was completed. The bladder was filled with methylene blue and the defect on the posterior wall (intraperitoneal) was identified. A cystoscopy was performed and there were two defects on the anterior(extraperitoneal) and posterior walls of the bladder. Urology team was called in and the bladder was deflected from the anterior abdominal wall and the defects were identified and sutured with 2/0 absorbable barb sutures. She had an uneventful recovery from the procedure and the cystourethrogram done 2 weeks after the procedure demonstrated a successful repair of the defects.

Discussion

Iatrogenic bladder injury is a rare complication of laparoscopic surgery, reported in 0.3% of procedures in the adult population. Bladder injuries during port insertion in-

-gynaecological laparoscopic surgery are even rare. However, identification of the injury is crucial to prevent late presentations with secondary complications such as urinary peritonitis. We present a case of management of classic suprapubic port bladder injury during gynaecological laparoscopy.

Conclusion

Classic suprapubic port bladder injuries produce intraperitoneal and extraperitoneal defects in the bladder. Although, intraperitoneal defects need repair, small extraperitoneal defects can be managed conservatively. Laparoscopic repair of the bladder is associated with less surgical morbidity and faster recovery compared to open procedure. Leaving an indwelling urinary catheter is recommended up to two weeks and interval imaging of the lower urinary tract is advised depending on the severity of the injury and feasibility of the repair.

Primary prevention of the bladder injuries during laparoscopy is the key to prevent further sequelae. Insertion of the suprapubic port perpendicular to the abdomen while the patient is flat on the bed, insertion under direct vision and transperitoneal identification of the demarcations of the bladder may help in prevention of bladder injuries.

References

1. Levy BF, De Guara J, Willson PD, Soon Y, Kent A, Rockall TA. **Bladder injuries in emergency/expedited laparoscopic surgery in the absence of previous surgery: a case series.** Ann R Coll Surg Engl. 2012; 94 (Apr); PMID: 22507707; PMCID: PMC3705255; e118-e120 <https://doi.org/10.1308/003588412X13171221502149>

2. Gascón J, Acién M, Acién P. **Urinary peritonitis due to unrecognized bladder injury during laparoscopy: a case report.** World J Nephrol Urol. 2013; 2 (North America)