

Single-incision Laparoscopic Surgery for Removal of Ectopic IUD with Bladder Repair

Hanlin Yang¹, Kristina Duan¹, Kristi Adrian Fu¹, Mengyue Yang¹, dan zi¹, and Xiaoming Guan²

¹Affiliation not available

²Baylor College of Medicine

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Abstract

Objective: To investigate the advantages of using single-incision laparoscopy in the removal of ectopic IUD and bladder repair surgery. **Patient:** An asymptomatic 42-year-old woman with an 18-year IUD history requested removal of her IUD with a desire to conceive in the near future. Ultrasound and X-ray imaging identified the device penetrating completely through the uterus and partially through the bladder. The IUD was removed via single- incision laparoscopic surgery and hysteroscopy after the patient expressed concern for the cosmetic aftermath of multi-port surgery. **Outcome:** An ectopic IUD removal and bladder repair was successfully performed by single-incision laparoscopic surgery.

Rich media available at <https://youtu.be/gTzKs3kMGmg>

Objective: To investigate the advantages of using single-incision laparoscopy in the removal of ectopic IUD and bladder repair surgery.

Design: A narrated instructional video guide detailing the procedure (with Institutional Review Board approved)

Setting: Affiliated Hospital of Guizhou Medical University, Guizhou, China

Patient: An asymptomatic 42-year-old woman with an 18-year IUD history requested removal of her IUD with a desire to conceive in the near future. Ultrasound and X-ray imaging identified the device penetrating completely through the uterus and partially through the bladder. The IUD was removed via single- incision laparoscopic surgery and hysteroscopy after the patient expressed concern for the cosmetic aftermath of multi-port surgery.

Interventions: A single-incision laparoscopy was performed for retrieval and removal of ectopic IUD with lysis of associated adhesions and repair of the bladder. The procedure included hysteroscopy. Entry was made through an umbilical incision. Adhesions were separated using a monopolar hook between the bladder and uterus to locate the ectopic IUD. All fibrotic tissue were excised with the bipolar slotted grasper to minimize additional damage to surrounding tissues. As the right arm of the IUD was embedded in the muscle layer of the bladder, removal resulted in an approximately 2-cm rupture in the bladder wall. On laparoscopic examination, the interior of the bladder showed smooth walls and a small amount of clear liquid. The rupture was repaired in two layers using continuous 2-0 coated sutures: first in the full layer, then strengthened in the seromuscular layer. Injection of methylene blue confirmed no leakage from the repaired bladder. After cleaning with normal saline, the uterine horn was found to be the blind on the left,

while normal on the right. A Foley catheter was placed in the bladder for a week. The recovery course was uneventful, and the patient returned to normal bladder function post-catheter removal.

Main Outcome Measures: An ectopic IUD removal and bladder repair was successfully performed by single-incision laparoscopic surgery, with the patient achieving full postoperative recovery.

Results: Total operation time was approximately 70 min, with a low estimated blood loss of 5 ml.

Conclusion: Single-port laparoscopic surgery may provide a safe, minimally invasive, and cosmetically superior method for removing ectopic IUDs.

Disclosure of interest: The authors report no conflict of interest. Completed disclosure of interest forms are available to view online as supporting information.

Contribution to authorship

Data Collection: HLY, KD, KAF, DZ, XMG.

Data analysis and interpretation: HLY, KAF, MYY, DZ, XMG.

Responsible surgeon or imager: HLY, KD, KAF, MYY, DZ, XMG.

Manuscript preparation: HLY, KD, KAF, MYY, DZ, XMG.

Patient recruitment conception and design of study: HLY, DZ.

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