

# Peer Review File

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## Reviewer A

Authors present case series of repair of uretero-vaginal fistula with robotic procedure. Important is the careful diagnose with uretero-pyelography and the tension free neoimplantation of the ureter if possible with healthy tissue wrap (omentum, peritoneum, amniotic tissues) to improve the blood supply and regeneration.

-Please assign the study to stage I IDEAL-stage of surgical innovation (McCulloch, Lancet 2009)

Reply: Thanks for your advice. We assign our study to stage I according the IDEAL recommendations.

Changes in the text: on line 64-65.

-What happened to the 37 patients with UVF which did not undergo robotic surgery.

Reply: Thanks for your question. Another 37 patients with UVF underwent repair surgery through open or laparoscopy according to their condition, because our institute had not yet performed robotic surgery at that time. In this paper, we aimed to report the process and outcome of robotic surgery to manage UVF, so cases of non-robotic surgery are excluded.

Changes in the text: on line 70-71.

-What were the selection criteria for the robotic procedure?

Reply: Thanks for your question. The indications for robotic procedures for patients with UVFs were as follows: 1. Repeated vaginal leakage affected the patient's life and work and patients with recurrence of urine leakage after double-J stent removal; 2. There was a gradual increase in hydronephrosis, which affected renal function; 3. The patients could not tolerate palliative treatments such as double-J stents and nephrostomy and were expected to undergo robotic repair surgery.

Changes in the text: on line 90-96.

-What happened with the vaginal fistula?

Reply: Thanks for your question. Among the patients included in this study, they all showed continuous outflow of urine from the vaginal fistula and repeated urinary tract infections, which seriously affected their quality of life and even unable to live and work normally.

Changes in the text: None.

-Please check grammar by native speaker.

Reply: Thank you for reminding us. We contacted AJE to help polish the full text.

Changes in the text: polished.

### **Reviewer B**

The authors present a retrospective report of a small series of four cases of robotic management of uretero-vaginal fistulas. The study is interesting because it comments on the advantages of robotic surgery for the treatment of these cases, however, it lacks originality and its scientific contributions are limited to a descriptive report. First of all, I consider that the article could be accepted for publication if some modifications are made that are detailed below:

1.- I recommend that the authors optimize the bibliographic review, since some references such as those detailed below have been omitted:

1: Shaw J, Tunitsky-Bitton E, Barber MD, Jelovsek JE. Ureterovaginal fistula: a case series. *Int Urogynecol J.* 2014 May;25(5):615-21.

2: Kidd LC, Lee M, Lee Z, Epstein M, Liu S, Rangel E, Ahmed N, Sotelo R, HemalA, Eun D. A Multi-institutional Experience with Robotic Vesicovaginal and Ureterovaginal Fistula Repair After Iatrogenic Injury. *J Endourol.* 2021 Mar 31.

3: Gellhaus PT, Bhandari A, Monn MF, Gardner TA, Kanagarajah P, Reilly CE, Llukani E, Lee Z, Eun DD, Rashid H, Joseph JV, Ghazi AE, Wu G, Boris RS. Robotic management of genitourinary injuries from obstetric and gynaecological operations: a multi-institutional report of outcomes. *BJU Int.* 2015 Mar;115(3):430-6.

Reply 1: Thanks for your advice. We optimized the bibliographic review and added data of the above-mentioned references in the Table 2.

Changes in the text: on line 219 and Table 2.

2.-The initial management of uretero-vaginal fistulas focuses on ureteral catheterization, and reimplantation is considered in case of failure of this approach or when it is impossible to insert the retrograde catheter. I recommend that the authors explain in their cases what were the indications for the robotic approach and what were the criteria for selecting patients for this study.

Reply 2: Thanks for your advices. The indications for robotic procedures for patients with UVFs were as follows: 1. Repeated vaginal leakage affected the patient's life and work and patients with recurrence of urine leakage after double-J stent removal; 2. There was a gradual increase in hydronephrosis, which affected renal function; 3. The patients could not tolerate

palliative treatments such as double-J stents and nephrostomy and were expected to undergo robotic repair surgery. The inclusion criteria of the patients in this study were patients who diagnosed with UVF and underwent robotic ureteral reimplantation in our hospital.

Changes in the text: on line 90-96.

3.-Authors should explain in the text how long the robotic repair was delayed after diagnosis.

Reply 3: Thank you for reminding us. We have added this data in the text and Table 1.

Changes in the text: on line 32-33 & 142-143 and Table 1.

4.-Between lines 88 and 94, the authors comment on the management of the DJ catheter and nephrostomy. However, it is striking that they used catheter and nephrostomy simultaneously, and that they have kept the nephrostomy tube clamped for 2 weeks. This management should be better explained and the reasons for using both urinary diversions should be explained.

Reply 4: Thanks for your question. In fact, we did not deliberately leave the nephrostomy and double-J stent out intentionally. The 3 patients who had indwelling nephrostomies before the operation had their nephrostomies retained after the operation. The nephrostomy tube can be used not only as a protective measure but also to perform antegrade urography after the double-J stent is removed to judge the success of the operation. In addition, the nephrostomy tube was clamped for 2 weeks, and if the patient had symptoms such as low back pain or fever, the nephrostomy tube was opened to relieve the symptoms. Otherwise, it can be unplugged. Our goal is to help patients recover after surgery in the safest way possible. Of course, a long-term indwelling nephrostomy can also interfere with the patient's quality of life.

Changes in the text: None.

5.-The authors are invited to explain that in all cases the cause of the fistula was post-hysterectomy, as it is only shown in the table.

Reply 5: Thanks for your advice. We have added this information to the text.

Changes in the text: on line 31-32 & 141-142.

6.-On line 110 it is described that ureteroscopy was performed. Authors should explain the indication for ureteroscopy.

Reply 6: Thanks for your advice. Usually, we will perform ureteroscopy while removing the patient's double-J stent to check for stenosis or poor healing of the anastomosis.

Changes in the text: on line 155-157.

7.-On line 133, It is proposed to the authors to delete this sentence or provide a better explanation.

Reply 7: Thanks for your advice. We have deleted the sentence of “especially doctors in grass-roots hospitals (our four patients are the same as the situation)”.

Changes in the text: deleted a sentence.

8.-On line 141-142, It is proposed to the authors to delete this sentence or provide a better explanation.

Reply 8: Thanks for your advice. We have modified the description to be more appropriate.

Changes in the text: on line 186-187.

9.- On line 145, explain that the use of a catheter prevents this complication.

Reply 9: Thanks for your advice. We have explained that the use of double-J stents can prevent ureteral strictures to a certain extent.

Changes in the text: on line 187-191.

10.- The figure 1 and the line 296 must be corrected, because the red arrow describing the text is not observed in the radiological image, and the word "uterus" is also used where it could mean “ureter”. On the other hand, images A and B are confusing since they are commented as cystoscopy, but it looks like vaginoscopy images. Also, it is of poor quality.

Reply 10: Thank you for reminding us. We have corrected the figure 1 and its Figure legend. Actually, we used cystoscopy to examine the bladder and vagina. In addition, we have attached the original image, perhaps due to the focal length of the endoscope, the image was indeed not high-definition.

Changes in the text: the revised Figure 1 (revised figure legend can be seen on line 355-360).

11.- In line 301 there must be an error, because it says "virgin" and it seems that it should say vagina

Reply 11: Thank you for reminding us. We have corrected the error.

Changes in the text: on line 364.

### **Reviewer C**

The paper seems very interesting, more cases of successful closure of the UVF without any

serious complications make this method of management of the ureterovaginal fistula very promising.

The manuscript needs extensive English proofreading.

Reply: Thank you for reminding us. We contacted AJE to help polish the full text.

Changes in the text: polished.

Did the authors establish any medical inclusion or exclusion criteria to the robotic surgery?  
Did those patients fulfill any special conditions?

Reply: Thanks for your question. The indications for robotic procedures for patients with UVFs were as follows: 1. Repeated vaginal leakage affected the patient's life and work and patients with recurrence of urine leakage after double-J stent removal; 2. There was a gradual increase in hydronephrosis, which affected renal function; 3. The patients could not tolerate palliative treatments such as double-J stents and nephrostomy and were expected to undergo robotic repair surgery. Patients were excluded if they had coagulation dysfunction, could not tolerate anesthesia and surgery, or had an uncontrolled acute urinary tract infection.

Changes in the text: on line 90-97.