

Peer Review File

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Reviewer A

This video and abstract raise the important point of addressing and preventing pelvic organ prolapse in the patients undergoing radical hysterectomy for cervical cancer diagnosis. Survivors of cancer can experience significant bother from prolapse onset in the post-operative period and I appreciate the author's pursuit of preventing vaginal vault prolapse to improve quality of life. The video provides adequate documentation of surgical steps with helpful labels of intra-abdominal anatomy. I have the following feedback:

1. The grammar in the abstract should be improved, throughout the abstract, there are multiple confusing sentence structures and sentence fragments. Some examples are below but not extensive:

- Abstract - "Because of using tissue-autografting, relieving prolapse symptoms, restoring pelvic anatomy, maintaining a sexual function." This is a sentence fragment and should be re-written

Reply: Thank you very much for your suggestion. We have revised all the parts involving language and grammar, especially the abstract part.

Changes in the text (see Page 1, line 23-25): The use of tissue-autografting, helps to relieve prolapse symptoms and restore pelvic anatomy, hence maintaining the patient's sexual function.

- Line 45-46: "20 surgeries have completed with good postoperative recovery and no cases of relapse" should read "20 surgeries have been completed with good post-operative recovery..."

Reply: Thank you very much. We have made adjustments.

Changes in the text (see Page 2, line 45-47): A total of 20 surgeries follow-up 3 years which had no uterine prolapse before operation have been completed successfully, with good postoperative recovery and no cases of relapse.

-Line 80: formix should say fornix but also the term "vaginal cuff" includes the apex and remnant of the fornix

Reply: Thank you for your professional advice. We have made adjustments.

Changes in the text (see Page 4, line 88-89): Meanwhile, gynecological examination revealed no prolapses of vaginal top and fornix, the result of POP-Q staging was stage 0.

2. Please include in the post-operative follow up POPQ exam if possible to reflect objective prolapse exam.

Reply 2: Thank you very much, we've added POP-Q scores to the manuscript.

Changes in the text (see Page 4, line 88-89): Meanwhile, gynecological examination revealed no prolapses of vaginal top and fornix, the result of POP-Q staging was stage 0.

3. The discussion can be made more concise/

Reply 3: Thank you very much. We have simplified the text and adjusted the grammar.

Reviewer B

Introduction:

- What motivated you to seek a novel way of vaginal arch suspension?

Reply: Thank you very much. Laparoscopic pelvic floor surgery has better exposure than transvaginal surgery. The sciatic spine fascia proposed by Professor Lan Zhu from Peking Union Medical College Hospital is clinically feasible, so we found such a method under laparoscopy.

- How long were patients followed up for? (line 46)

Reply: Thank you very much. Postoperative follow-up for three years has been indicated in the paper.

Changes in the text (see Page 2, line 45-47): A total of 20 surgeries follow-up 3 years which had no uterine prolapse before operation have been completed successfully, with good postoperative recovery and no cases of relapse.

- Did the detailed patient have history of prolapse? (line 46)

Reply: None of these patients had pelvic organ prolapse before surgery, as described in the article.

Changes in the text (see Page 2, line 45-47): A total of 20 surgeries follow-up 3 years which had no uterine prolapse before operation have been completed successfully, with good postoperative recovery and no cases of relapse.

Surgical Technique:

- Line 54: More detail is needed about tissue removal in the obturator fossa. What was the goal and when did you stop? Is this the same step as the "cutting downward" in line 60?

Reply: We have included the method of exposing obturator fossa in the paper, which is consistent with that described later.

Changes in the text (see Page 3, line 53-58): Radical hysterectomy and pelvic lymph node dissection were routinely performed, Pull the lymphoid tissue above the internal iliac artery outward and downward to expose the internal iliac artery, separate and clean the internal iliac lymph group from the upper and outer sides, pull the external iliac vessels outward, and push the internal iliac vessels inward to expose the obturator fossa, and the focus of suspension was to expose the obturator fossa for the ischial spine fascia.

- Description of ischial spinous fascia (lines 64-68) is already in introduction.

Suggest removing the repeat information from surgical technique section

Reply: Thank you for your valuable suggestions. We have deleted them. (See Page 4, line 70-73)

Line 59: Typo obturator interus, rather than internal

Reply: Thank you very much. We corrected the error.

Changes in the text (see Page 3, line 65-69): In detail, the Ischial spinous was exposed by cutting downward along the obturator fossa and the ischial spinous fascia was accurately located by palpating inside the anus in conjunction with the in-laparoscope pliers to facilitate full exposure of the fascia 1 cm to the outer side of the ischial spinous in the horizontal direction.

Post-op management

- Line 77: What was used to dilate the vagina?

Reply: Thank you very much. We want to describe the elasticity of the vagina.

Changes in the text (see Page 4, line 85): The elasticity of vaginal tissue is good

- Line 77: In video it says 3 months later but in paper says 3 years

Reply: The video of the operation was completed three months after the operation, and the follow-up period of the patient was three years.

- Line 79: What do you mean by vaginal bulging? Is this desirable?

Reply: Thank you very much. We have made a change, which basically means that patients can have normal sex life after surgery.

Changes in the text (see Page 4, line 86-87): Three years later, the patient was able to resume a normal sexual life with the full sensation of vulvar straining feeling.

Comments:

- Lines 83-84: Did your paper also only focus on women with symptomatic stage 2 and 3 POP? If not, perhaps discuss reasoning for inclusion criteria and how it would impact results

Reply: Thank you very much. Our main objective is to prevent future pelvic prolapse through intraoperative vaginal suspension in non-prolapse patients.

- Lines 95-97: what is the point of comparison? May be a very optimistic conclusion to draw from small study

Motivation to seek alternative to sacrospinous ligament fixation

Reply: Thank you very much. We also believe that laparoscopic pelvic floor surgery is a very good surgical method, and sciatic spine fascia suspension is easier to identify, so there will be some larger clinical trials in the future.