
Peer Review File

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Review Comment-Reviewer A

1. First, the title is unclear, which needs to indicate the efficacy and safety of L-ASLS+DS vs. T-WPFR and the clinical research design of this study, i.e., a retrospective comparative cohort study.

Reply: We thank the reviewer for this suggestion.

We have changed the title of the article according to the requirements of the reviewer. The title is “The safety and effectiveness of laparoscopic anterior sacral ligament suspension combined with dome suspension in the treatment of bladder prolapse after hysterectomy: a retrospective cohort study”. (Page 1, Line 3-5)

2. Second, the abstract needs further revisions. The background did not describe the clinical needs for testing the efficacy and safety of L-ASLS+DS and what the knowledge gaps are on the efficacy and safety data of L-ASLS+DS.

Reply: We thank the reviewer for this suggestion.

We have revised our text as suggested. (Page 2, Line 4-9)

3. The methods need to describe the inclusion of subjects, follow up procedures, and outcome measures of efficacy and safety. The results need to first briefly summarize the baseline clinical characteristics of the two groups and the test of the baseline comparability of the two groups. The authors need to report detailed outcome values of the two groups and the accurate P values to quantify the findings in the results. The conclusion is misleading given the methodology limitations of this study, not a RCT.

Reply: We thank the reviewers for their suggestions. This is our oversight. We did not include the baseline comparison table in the article. We have revised the text and added Table 1 as suggested. (See Table 1)

3. Third, in the introduction of the main text, the authors need to explain why the L-ASLS+DS is potentially effective and safe and what the knowledge gaps on its efficacy and safety are.

Reply: We thank the reviewer for this suggestion. We have revised our text as suggested. (Page 8, Line 34 ; Page 9, Line 1-7)

4. Fourth, in the methodology of the main text, the authors need to correctly describe the clinical research design, sample size estimation, and assessment of the baseline clinical factors. The clinical research design is not case-control study. The authors need to further explain whether the control group is appropriate and needed because “Patients were divided into study group and control group by voluntary means or economic reasons”, which means systemic difference between the two groups and the comparisons would result in misleading findings. Measurements of efficacy and safety outcome must be detailed enough. In

statistics, please first describe the test of the baseline comparability of the two groups and explain the handling of missing data and the imbalance in baseline factors. Please ensure $P < 0.05$ is two-sided.

Reply: We thank the reviewer for this suggestion. We have revised our text as suggested. We changed Table 4 and added Table 5 to make the article more convincing. (Page 7, Line 33-34 ; Page 8, Line 1-4)

Review comment-Reviewer B

1. This is a very good and meaningful study. What I want to ask is that there are many treatments for pelvic organ prolapse represented by bladder prolapse. Why should the author design such a surgical method?

Reply: Thank the reviewer for his suggestion. As you said, there are many surgical methods to treat bladder prolapse in clinic, but the traditional pelvic floor reconstruction may have more complications, because the traditional pelvic floor reconstruction changes the vaginal axis to a certain extent, resulting in complications such as postoperative bleeding, sexual pain, pelvic pain, etc. In this operation, we suspended the vault and sutured it under the direct vision of laparoscope to greatly reduce the damage of surrounding soft tissues such as rectum, blood vessels and nerves during the fixation of anterior sacral ligament, so as to ensure the stability and accuracy of suspension.

Changes in the text: Page 8, Line 30-32.

2. For surgical implantation of bladder patch, how can we reduce complications such as overactivity of bladder?

Reply: Thanks for the suggestion of the reviewer, we will adopt the L-ASLS+DS surgical method, because the traditional transperineal total pelvic floor reconstruction is prone to postoperative overactivity of the bladder, which may be because the operation area is closer to the bladder wall than the research group; The placement of mesh in the bladder is prone to urinary retention, which will also lead to excessive activity of bladder detrusor; In addition, the traditional transperineal total pelvic floor reconstruction surgery for suspending the bladder and its easy complications are ureteral injuries, which are mostly caused by the retention of mesh, such as twisting and obstruction. The above conditions can lead to the occurrence of overactivity of the bladder. Therefore, we designed the L-ASLS+DS surgical method to reduce the occurrence of overactivity of the bladder.

Changes in the text: Page 9, Line 29-33.

3. Conventional patch surgery can already solve the problem of pelvic organ prolapse. Why should we use laparoscopic technology to assist in solving pelvic organ prolapse?

Reply: Thanks for the suggestion of the reviewer, the traditional repair surgery only suspends the bladder through the perineal route, and the suspension force and force point are limited. The use of laparoscopic technology is to suspend the prolapsed bladder from the highest point, so the suspension force and force point are stronger than the traditional repair surgery, so we use laparoscopic technology to help solve the pelvic organ prolapse.

Changes in the text: Page 8, Line 33-34--Page 9, Line 1-3.

Review comment-Reviewer C

1. Your study is a retrospective cohort study, please revise the main text.

1 ~~##Study design and setting~~

2 ←

3 This was a retrospective **case-control** study. Patients who had undergone a
4 hysterectomy at the Department of Urology of Shanxi Provincial People's Hospital
5 from January 2011 to January 2022 were included in this study. Based on the

Thank you for pointing out our mistakes. We have made corresponding modifications according to your requirements. (Page 4, Line 4)

2. Reporting Checklist

Please fill line 1 of item 15, this information should be reported in the main text.

14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Page 6 Line 25	results paragraph 2,3
	(b) Indicate number of participants with missing data for each variable of interest	Page 6 Line 25	results paragraph 2,3
	(c) <i>Cohort study</i> —Summarise follow-up time (eg, average and total amount)	Page 6 Line 14	results paragraph 1
15*	<i>Cohort study</i> —Report numbers of outcome events or summary measures over time	N/A	N/A
	<i>Case-control study</i> —Report numbers in each exposure category, or summary measures of exposure	N/A	N/A
	<i>Cross-sectional study</i> —Report numbers of outcome events or summary measures	N/A	N/A

Thank you for pointing out our mistakes. We have made corresponding modifications according to your requirements. And we corrected it in the checklist. (Page 7, Line 26-29)

3. Figure 2

Please explain T-WPFR and L-ASLS-DS in the legend.

Thank you for pointing out our mistakes. We have made corresponding modifications according to your requirements. (Page 13, Line 2-4)

4. Tables

a) Please check ALL the tables and add the description to the table footnote that how the data are presented in tables.

Thank you for pointing out our mistakes. We have made corresponding modifications according to your requirements. (Page 14, Line 1-3)

b) Please explain ALL the abbreviations in the table footnote.

Thank you for pointing out our mistakes. We have made corresponding modifications according to your requirements. (Page 15, Line 1-5)

5. References/Citations

a) References 15 and 17 are the same, please delete one of them and revise both the citation in main text and reference list's order.

Thank you for pointing out our mistakes. We have made corresponding modifications according to your requirements. (Page 12, Line 18-19)

b) References 14 and 16 are the same, please delete one of them and revise both the citation in main text and reference list's order.

Thank you for pointing out our mistakes. We have made corresponding modifications according to your requirements. (Page 12, Line 16-17)