Reviewer's report

Title: Efficacy of laparoscopic adenomyomectomy using double-flap method for diffuse uterine adenomyosis

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Reviewer: Peng-Hui Wang

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Manuscript No. 1441134875148348, entitled “Efficacy of laparoscopic adenomyomectomy using double-flap method for diffuse uterine adenomyosis”.

This was a prospective controlled study to investigate the efficacy of laparoscopic adenomyomectomy using a double-flap method for the treatment of uterine diffuse adenomyosis, comparing with conventional laparoscopic adenomyomectomy in a single institute from March 2011 to February 2014. A total of 94 women were enrolled, including 48 women who were treated with conventional group and 46 with double-flap method.

Adenomyomectomy, especially for diffuse-type uterine adenomyosis might be an alternative rescue for women with symptomatic uterine adenomyosis, who cannot be tolerated by long-term medical treatment, and have a need of uterine preservation, although it is not be regarded as the standard therapy. However, many recent reports favored this strategy to be successful in the management of women with diffuse-type uterine adenomyosis and the results seemed to be promising (Saremi et al. Reprod Biomed Online. 2014; Kim et al. Obstet Gynecol Sci 2014). In addition, a thorough review addressing the surgical treatment and/or technique for adenomyosis and/or adenomyoma has also been available in the literature (Horng HC et al. Taiwan J Obstet Gynecol 2014; Grimbizis GF et al. Fertil Steril 2014). These references might add some hints for the authors when they discussed their findings.

In the current study, the results revealed that laparoscopic adenomyomectomy might be a useful method in the management of diffuse uterine adenomyosis. In addition, a double-flap method during the laparoscopic adenomyomectomy seemed to be more feasible compared with those performed by conventional method. I congratulate this excellent work by authors and also appreciate that the authors share their experience. However, the data of long-term outcome, including fertility, uterine rupture, and recurrence were deficient in this study, since these data might provide much more evidence to convince the readers. Some comments and questions are shown below.

1. Since it is relatively difficult to perform the laparoscopic adenomyomectomy in the management of women with diffuse-type uterine adenomyosis, how many doctors involved this procedure? In addition, conversion rate and/or other unwanted events during and after operation might be required in this report. It is hard to believe that all operations could be finished as schedule and/or
uneventfully.
2. The changes of hemoglobin level might be needed to provide the more convinced data to support the advantages of double-flap method compared to conventional method.
3. Other potential hemostasis methods, such as transient occlusion of feeding vessels or permanent ligation of feeding vessels can be discussed, because laparoscopic adenomyomectomy for diffuse-type uterine adenomyosis might spend much time, which resulted in heavy amount of blood loss during operation sometimes. Moreover, was only one drug used in this study?
4. Entering uterine cavity might be totally avoided. How to deal with this part, how to evaluate this part, and how to repair the defect were absent in the report.
5. Many advanced instruments of the laparoscopic surgery have been available now. Please discuss these, for example a new brand of suture material, such as V-lock.
6. Since this operation is for the preservation of the uterus, the function of the uterus might be another important issue. Fertility might be one of the best representatives. If possible, please report the data and/or discuss it. Many recent literatures might offer a better reference.
6. Figure 1 may be a redundant. A graphic feature to clearly demonstrate the difference of parameters before, during and after operation between two methods is highly recommended.
7. Please re-order the figures 2, because it is hard to read. In addition, please improve the quality of figures 2E and 2F.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests