Many thanks to the Referees and Editors for encouraging our work and for giving useful comments. Those comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our researches. We have studied comments carefully and have made correction which we hope meet with approval. Revised portion are marked in red in the paper. The main corrections in the paper and the responses to the reviewer's comments are as flowing:

Reviewer #1:

Review of "Retroperitoneal teratoma resection with the assistance of three-dimensional visualization reconstruction and VR technique: a case report". The overall manuscript needs to be revised by a native speaker.

Reply: Thank you for the comments. We have had the manuscript polished with a professional assistance in writing. Language Editing certification was attached. All changes were marked in red in the revised manuscript.

Imaging examinations and laboratory examinations

P3, ln 79 "liposarcoma retroperitoneal," better to be rephrased as "retroperitoneal liposarcoma".

Reply: Thank you for reminding us the improper description on the study. We have the improper parts revised accordingly.

P3, Ln 79 "physiologic cysts in bilateral adnexal regions" this differential isn't accepted due to location of the lesion

Reply: Thank you for your valuable advice. We deleted this improper description.

P7, Ln 161 Figure 3: Under virtual condition …. Needs more demonstrative images with closer view, especially the relation with the renal vessels.

Reply: Thank you for the comments on the paper. We replaced the images as suggested.

Reviewer #2:

The authors describe the case report of the retroperitoneal resection simulated by 3D reconstruction and VR technique. The theme of this study is interesting & the manuscript is well-documented.

1. Please describe the details about the process and program used for 3D reconstruction and VR technology.

Reply: Thank you for the comments on the paper. Your opinions inspired us and we revised the manuscript accordingly. In the revised paper, the details about the process and program used for 3D reconstruction were described in *Imaging and laboratory examination* section and VR technology were described in TREATMENT section. "We used the proprietary XMQB-Liver software (Xiamen Qiangben Technology Co, Xiamen, China) for 3D reconstruction of CT images. The software allowed rotation, blurring, and elimination of elements in the 3D model (Figure 2); provided omnidirectional views (Figure 2A, B); and allowed tumor virtualization (Figure 2C), removal of normal organs, and observation of the relationship between the tumor, blood vessels, and surrounding organs (Figure 2D). The 3D model was imported into the VR simulation system. To simulate the surgical resection procedure, the operator wearing the VR helmet directly operated on virtual tissues and organs using a stylus. By VR imaging with multiview observation (Figure 3), we were able to visualize tissues and blood vessels (Figure 3A–C) and removed the normal organs and tumors, simulating the surgical resection process (Figure 3D–H)."

2. Please discuss more about the differences between real surgery and VR simulation.

Reply: Thank you for your valuable advice. The differences between real surgery and VR simulation was discussed in the DISCUSSION section. "VR technology allows simulation of the surgery, but this still differs in many respects from the actual surgery. For instance, the boundary between the tumor and other tissues is relatively clear in the simulation while in reality, the surgery is complicated by limitations of the surgical field, intraoperative hemorrhage, tissue adhesion, and other factors. Additionally, the VR simulation can clearly show relationships between larger tissues but is less accurate for smaller tissues; the latter can only be confirmed in the actual surgery. Finally, blood vessels are static in the VR simulation; during real surgery, separating the tumor from blood vessels is difficult because of the pulsation of large vessels."

3. I think the quality of CT scans should be essential for identifying the small important tissue like adrenal, ureter or small nerve fibers. Please describe the CT scan. And what do you think about this?

Reply: Thanks for the referee's good evaluation. Your opinion is very correct and we describe the quality of CT scans as suggested in revised manuscript. In the DISCUSSION section, "3D reconstruction and VR simulation are based on CT images. In each image, different organs are distinguished according to their CT value and images in each layer are superimposed to generate the 3D model. Therefore, the quality of CT images is very important. Small tissues such as adrenal glands, ureters, and small nerves are more readily visible in high-resolution CT images. Thin-slice CT scanning, which obtains images of multiple sections through the tissue, can also provide a higher resolution view of small tissues. Additionally, enhanced CT allows differentiation of tissues from each organ through comparisons of images obtained at different time points."

Science editor

1. Scientific quality: The manuscript describes a case report of the retroperitoneal teratoma resection with the assistance of three-dimensional visualization reconstruction and VR technique. The topic is within the scope of the WJG. (1) Classification: Grade B and Grade C; (2) Summary of the Peer-Review Report: The authors describe the case report of the retroperitoneal resection simulated by 3D reconstruction and VR technique. The theme of this study is interesting & the manuscript is well-documented. However, there are some issues should be addressed. Please describe the details about the process and program used for 3D reconstruction and VR technology. Please discuss more about the differences between real surgery and VR simulation. The questions raised by the reviewers should be answered; and (3) Format: There are 6 figures. A total of 10 references are cited, including 6 references published in the last 3 years. There is 1 self-citation.

Reply: Thank the reviewer for the comments. Both the details about the process and program used for 3D reconstruction and VR technology and the differences between real surgery and VR simulation were described in the revised manuscript as suggested.

2. Language evaluation: Classification: Grade B and Grade B.

Reply: We have had the manuscript polished with a professional assistance in writing. Language Editing certification was attached. All changes were marked in red in the revised manuscript.

3. Academic norms and rules: The authors provided the informed consent and CARE Checklist–2016. The authors need to provide the signed Conflict-of-Interest Disclosure Form and Copyright License Agreement. No academic misconduct was found in the CrossCheck detection and Bing search.

Reply: Thank you for reminding us. We have provided the informed consent, CARE Checklist–2016, the signed Conflict-of-Interest Disclosure Form and Copyright License Agreement as required.

4. Supplementary comments: This is an unsolicited manuscript. The topic has not previously been published in the WJG. The corresponding author has not published articles in the BPG.

Reply: Thank you for the comments on the paper.

5. Issues raised: (1) I found no "Author contribution" section. Please provide the author contributions; (2) I found the authors did not provide the original figures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor; and (3) I found the authors did not add the PMID and DOI in the reference list. Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. Please revise throughout.

Reply: Thank you for the comments on the paper. "Author contribution" was added as required. The original figures were provided in PowerPoint as suggested. The PMID and DOI of the references were added as well.

6. Re-Review: Required.

Reply: Thank you for the comments on the paper. The point-to-point responses to reviewers were listed in this letter.

7. Recommendation: Conditionally accepted.

Reply: We appreciate for Editors and Reviewers' warm work earnestly, and hope that the modifications will meet with approval.

Once again, thank you very much for your comments and suggestions.

Yours sincerely,

Wengang Li

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