Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: The authors in this article describe their experience with multidisciplinary surgical resection of retroperitoneal sarcoma (RPS) using intra- and extrapelvic approaches, and conclude that this approaches can improve the macroscopic security of the surgical margin. The paper is scientifically satisfactory, rigorous and well documented. The title reflect the main subject of the manuscript, the abstract reflect the work described in the paper, the key words reflect the focus of the manuscript. The manuscript adequately describe the background, present status and significance of the study, and describe methods in adequate detail. The study contributes significantly to the management of retroperitoneal sarcoma. The manuscript interpret the findings adequately and appropriately, highlighting the key points concisely, clearly and logically. The bibliography is good.

Response: We greatly appreciate your constructive comments and suggestions. In this revision, we have improved the paper by addressing the remaining issues raised by the review team. We sincerely thank you for giving us another opportunity to revise the paper. We proofread the entire manuscript to improve readability. We hope that we have adequately addressed the review team's concerns.

Reviewer #2:

Scientific Quality: Grade C (Good)

Language Quality: Grade A (Priority publishing)

Conclusion: Minor revision

Specific Comments to Authors: Intra and Extra Pelvic Multidisciplinary Surgical Approach of Retroperitoneal The treatment of Retroperitoneal sarcoma (RPS) considers a very challenging because of the features and characteristics of the tumour, where it has a high reoccurrence rate and sensitive location. According to this study applying intra and extra pelvic multidisciplinary surgical approach have better outcome than preforming other methods such as surgical approaches, chemotherapy or target therapy, and radiotherapy (RT).

Suggestions:

- 1. Although intra and extra pelvic have some benefits, but the invasive incision could harm surrounded organs and tissue and compress them.
- 2. Preforming multidisciplinary approach consume more time and high cost.
- 3. Big mass can limit intra and extra pelvic multidisciplinary approach surgery.
- 4. Follow up period was not well preformed.

And massive dissections and incisions of surrounding vessels and tissue could increase the morality rate postoperatively. Along with large estimated blood loss volume. Which will increase the risks of this surgery. 5. Preoperative embolization of retroperitoneal tumors?

Comment1 and 2: Although intra and extra pelvic have some benefits, but the invasive incision could harm surrounded organs and tissue and compress them. Preforming multidisciplinary approach consume more time and high cost.

Response: Thank you so much for your positive and encouraging comments on the manuscript. We agree with you that it is important to admit the limitation of our study due to the invasive surgical approach and more severe complications than usual treatment. <u>Among 8 patients for 10 cases</u>, only 3 had surgery in primary care. About 70% of all patients had a recurrence, and 50% had multidisciplinary surgery in more than tertiary care. In patients with sarcoma, with relatively few treatment options, a multidisciplinary approach was an essential

treatment option, considering serious surgical complications, high cost, and time-consuming method. The order of cases is in yellow highlight in Table 1, and we added the following to the discussion; "Moreover, almost 70% of all the patients had this surgery for recurrent diseases. Considering a few treatment options for recurrent RPS, a multidisciplinary approach is an essential option, though the surgical side effects are severe and the size that can be resected is rather small."

Table 1. Characteristics of patients with retroperitoneal sarcoma (n=8)

Characteristics		
Mean age (years)		42.75±18.4
Mean BMI		22.4±2.4
initial symptoms		
	1) Palpable mass	4 (50%)
	2) Pain on the specific site	4 (50%)
median Mass size (long axis, cm)		12.75±11.7
order of surgery		
	1) Primary	3 (30%)
	2) Secondary	2 (20%)
	3) Tertiary	<mark>2 (20%)</mark>
	4) More than tertiary	3 (30%)
history of neoadjuvan	t or adjuvant treatment	
	1) Neoadjuvant treatment	2 (25%)
	2) Adjuvant treatment	8 (100%)
surgical outcome		
	1) Median overall survival	64.6
	(month, median)	
	2) Progression-free survival	13.7
	(month, median)	
	3) Died patients due to disease	2 (25%)
pathology		
	1) Liposarcoma	2 (25%)
	2) Leiomyosarcoma	1 (12.5%)
	3) Malignant peripheral nerve sheath	1 (12.5%)
	tumor	

4) Osteosarcoma	2 (25%)
5) Chondrosarcoma	1 (12.5%)
6) Low-grade fibromyxoid sarcoma	1 (12.5%)

Comment 3: Big mass can limit intra and extra pelvic multidisciplinary approach surgery.

Response 3: Thank you for your precise comments. We agree with you that there are limitations for mass size when the surgeon removed RPS (Retroperitoneal Sarcoma) through a multidisciplinary approach. We have added the following to the discussion section: "Compared to the data of Dana-Farber/Brigham and Women's Cancer Centre, which reviewed conventional surgical resection for RPS, the median size of resected mass was smaller in this study [15.5cm (range, 1.8–60.0 cm) versus 12.75 cm (range, 6–45.5 cm)] [22]." Considering that 70% of our patients in this study had a recurrent condition, the size of the removed RPS was smaller than that of conventional resection, but it was effective enough.

Comment 4: Follow up period was not well preformed.

Response 4: Thank you for your great comment. Since this study retrospectively reviewed only a relatively small number of patients who underwent multidisciplinary treatment, it was difficult to confirm the follow-up period. It was especially difficult because 70% of patients had a recurrence, and 50% had 3 or more treatments and this surgery. We will do a prospective study to further investigate what you pointed out. <u>Please consider the patient's characteristics</u> and course as a retrospective study.

Comment 5: And massive dissections and incisions of surrounding vessels and tissue could increase the morality rate postoperatively. Along with large estimated blood loss volume. Which will increase the risks of this surgery. Preoperative embolization of retroperitoneal tumors?

Response 5: Thank you for your essential comment on blood loss. We already performed preoperative arterial embolization if the cancerous mass was located or invaded the major vessel and suggested pre-operative vascular assessment (Tinelli's Score) to achieve surgical margins and reduce blood loss. "However, considering the cases that showed a large amount of

bleeding even after embolization, if a large amount of bleeding during surgery is suspected, even with a low score, embolization should be considered before surgery. "

All sentences related to your suggestions are <u>underlined and added sentences for your suggestions are</u> highlighted in yellow in the revised manuscript. Please check this revision. Thank you for your suggestion, and we look forward to hearing from you.

Reference

Fairweather M, Wang J, Jo VY, Baldini EH, Bertagnolli MM, Raut CP. Surgical Management of Primary Retroperitoneal Sarcomas: Rationale for Selective Organ Resection. *Ann Surg Oncol* 2018; **25**(1): 98-106 [PMID: 29067605 DOI: 10.1245/s10434-017-6136-4]