ROUND 1

Journal Editorial Office

Dear Editor,

We would like to resubmit the revised manuscript entitled "Transforaminal endoscopic excision of bi-segmental non-communicating spinal extradural arachnoid cysts: A case report and review of literature" for consideration by World Journal of Clinical Cases.

We would like to thank the reviewers for thoroughly reviewing our manuscript and making many thoughtful comments. We have revised the manuscript to address the reviewers' comments. The manuscript has been edited by a professional language company. Thank you for your consideration of our manuscript.

Yours sincerely,

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Comment:

Reviewer #1: Manuscript adequately describes the case. It is well organized and presented

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion.

Reviewer #2: The authors reported a case report of a patient with Spinal extradural arachnoid cysts (SEACs) and they performed a review on the topic. I congratulate the authors for the successful management of their case as well as for their work in this review. However, there were multiple issues with the paper that could use substantial improvement.

Introduction:

1.* The author mentioned, "A majority of SEAC cases reported in the literature involve one segment, whilst very few reporting disease across multiple segments". Was this reported in only one paper or reported in multiple papers. Of multiple papers, please cite them.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion.

Case Report:

2.* Please mention that you are reporting this manuscript in accordance with the CARE guidelines. Was consent obtained from the patient? If yes, please mention it in your manuscript according to CARE guidelines.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion.

3.* In the history of present illness, Didn't the patient complained of any myelopathic symptoms such as heaviness or stiffness?

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. When asked about the history, the patient complained of no myelopathic symptoms. The changes are in lines 3-4 of *History of present illness* in **CASE PRESENTATION**.

4.* The author mentioned "Physical examination revealed lower back tenderness" Is there any explanation for the tenderness? (this is more common in inflammatory lesions).

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. In this case, whist physical examination demonstrated tenderness in the lower back, but we believe that this was unlikely to be due to the cyst itself. The changes are in lines 13-15 of *Diagnosis* in **DISCUSSION.**

5.* The author mentioned "Sensation over the right-side of the abdomen was decreased" Which dermatome? Was it superficial sensation only?

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The decreased sensation dermatome is T12, and it was only superficial sensation. The changes are in lines 2-3 of *Physical examination* in **CASE PRESENTATION.**

6.* The author mentioned "strength in the lower extremities muscle groups was grade four" Distal and proximal were of equal intensity? Was the weakness distribution of UMNL or LMNL nature?

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The patient's distal and proximal muscle strength were equal. This was likely to be due to the patient's age (79-year-old), with no features suggestive of a upper motor neuron lesion or lower motor neuron lesion nature. The changes are in lines 16-19 of *Diagnosis* in **DISCUSSION.**

7.* The author mentioned "The right knee-tendon reflex and achilles-tendon reflex bilateral could not be elicited" What was the reason? What about planter reflex? Clonus?

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The knee-tendon reflex and achilles-tendon reflex were abnormal, but both the planter reflex and ankle clonus were normal, which may be due to expected variation between patients rather than directly related to the SEAC. The changes are in lines 5-6 of *Physical examination* in **CASE PRESENTATION** and lines 19-21 of *Diagnosis* in **DISCUSSION**.

8.* What about the muscle tone?

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. There is no abnormality in muscle tone. The change is in line 7 of *Physical examination* in **CASE PRESENTATION.**

9.* On Imaging examination, Was there any compression on the conus medullaris?

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. On imaging examination, there is no compression of the conus medullaris. The changes are in lines 4-6 of *Imaging examinations* in **CASE PRESENTATION.**

10.* The author mentioned "MRI with gadolinium (Gd) contrast demonstrated no significant enhancement of the cysts" Was there enhancement? What is the explanation? Usually, arachnoid cyst does not enhance? If yes, please discuss it in your discussion.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. MRI with gadolinium (Gd) contrast demonstrated no enhancement of the cysts. Typically SEACs show no enhancement after Gd administration. The changes are in lines 8-13 of *Diagnosis* in **DISCUSSION.**

11.* It would be interesting to gross intraoperative pictures.

Response: Thank you for your constructive suggestions. It is a pity that we did not leave intraoperative photos.

Discussion

12.* Please mention your search terms and strategy.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The changes are in lines 1-6 of **DISCUSSION.**

13.* The author mentioned, “Most SEACs reported in literature effect just one segment”. Please add references to this sentence.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The changes are in line 14 of **DISCUSSION.**

14.* The author mentioned, “Trauma and local mechanical stress, infection, or degenerative changes may all cause acquired dural defects”. Please add a reference to this sentence.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The changes are in line 8 of *Mechanisms of Pathogenesis* in **DISCUSSION.**

15.* The author mentioned, “This "one-way valve" may prevent or hinder the CSF from flowing back into the intradural space”. Please add a reference to this sentence.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The changes are in line 8 of *Mechanism of cyst enlargement* in **DISCUSSION.**

16.* The author mentioned, “The only perceived disadvantage of endoscopic spinal surgery is the risk of dural tear”. Please add a reference to this sentence.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion.

After modification, “the only perceived disadvantage of endoscopic spinal surgery is the risk of dural tear” is change to “dural tear has been a disadvantage of endoscopic spinal surgery”. The changes are in lines 23-24 of *Treatment* in **DISCUSSION.**

17.* The author mentioned, “A review of the literature revealed few other cases of non-communicating SEAC”. Please add references to this sentence.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The changes are in line 31 of *Treatment* in **DISCUSSION.**

18.* The author mentioned, “Proliferation of arachnoid cells may eventually lead to closure of the dural defects leaving a non-communicating cyst”. Please add a reference to this sentence.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The changes are in line 35 of *Treatment* in **DISCUSSION.**

19.* The author mentioned, “This is more likely in thoracic segment disease as the CSF pressure is close to zero in the upright position, which is beneficial to early closure”. Please add a reference to this sentence.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The changes are in line 37 of *Treatment* in **DISCUSSION.**

20.* The author mentioned, “Compared with communicating SEACs, surgeons treating non-communicating SEACs do not need to deal with the communication between the cyst and the dura, such as dural defects, arachnoid pedicles or fistulas”. Please add a reference to this sentence.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The changes are in line 43 of *Treatment* in **DISCUSSION.**

21.* The authors needs to make more thorough review of the literature as I did a quick search and found some reports that are not included in your review of the literature such as: 1- Choi SW, Seong HY, Roh SW. Spinal extradural arachnoid cyst. J Korean Neurosurg Soc. 2013;54(4):355-358. doi:10.3340/jkns.2013.54.4.355 2- Woo JB, Son DW, Kang KT, et al. Spinal Extradural Arachnoid Cyst. Korean J Neurotrauma. 2016;12(2):185-190. doi:10.13004/kjnt.2016.12.2.185

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The references 2 was “Spinal extradural arachnoid cyst” of Choi SW and 18 was “Spinal Extradural Arachnoid Cyst” of Woo JB.

Figure 1: Please arrange the figure so as the follow-up to be the last image and not between pre-operative images.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion.

General: * The level of the English language is poor but needs major grammatical revisions.

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The changes in the revised manuscript have been highlighted in red.

ROUND 2

Journal Editorial Office

Dear Editor,

We would like to resubmit the revised manuscript entitled "Transforaminal endoscopic excision of bi-segmental non-communicating spinal extradural arachnoid cysts: A case report and review of literature" for consideration by World Journal of Clinical Cases.

We would like to thank the reviewers for thoroughly reviewing our manuscript and making many thoughtful comments. We have revised the manuscript to address the reviewers' comments. The manuscript has been edited by a professional language company. The changes in the revised manuscript have been highlighted in red. Thank you for your consideration of our manuscript.

Yours sincerely,

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Comment:

Reviewer:

1. I would like to thank the authors for addressing most of my comments however, there is minor comments need to be addressed.

OLD COMMENT: The author mentioned, "A majority of SEAC cases reported in the literature involve one segment, whilst very few reporting disease across multiple segments". Was this reported in only one paper or reported in multiple papers. Of multiple papers, please cite them.
Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion.
NEW COMMENT: NOT REVISED

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The literatures were cited in the manuscript [1-11].

2. OLD COMMENT: The author mentioned "Sensation over the right-side of the abdomen was decreased" Which dermatome? Was it superficial sensation only?
Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The decreased sensation dermatome is T12, and it was only superficial sensation. The changes are in lines 2-3 of Physical examination in CASE PRESENTATION.
NEW COMMENT: PLEASE ADD SUPERFICIAL BEFORE SENSATION

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The changes are in lines 2-3 of Physical examination in CASE PRESENTATION.

3. OLD COMMENT: The author mentioned "The right knee-tendon reflex and achilles-tendon

reflex bilateral could not be elicited" What was the reason? What about planter reflex? Clonus?

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. The knee-tendon reflex and achilles-tendon reflex were abnormal, but both the planter reflex and ankle clonus were normal, which may be due to expected variation between patients rather than directly related to the SEAC. The changes are in lines 5-6 of Physical examination in CASE PRESENTATION and lines 19-21 of Diagnosis in DISCUSSION.

NEW COMMENT: DO YOU MEAN NO ANKLE CLONUS?

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. We mean the ankle clonus was negative. The changes are in lines 5-6 of Physical examination in CASE PRESENTATION.

4. OLD COMMENT: What about the muscle tone?

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. There is no abnormality in muscle tone. The change is in line 7 of Physical examination in CASE PRESENTATION.

NEW COMMENT: I WOULD SUGGEST TO PUT THE MUSCLE TONE BEFORE THE URINARY SYMPTOMS

Response: Thank you for your constructive suggestions. We have revised the manuscript according to your suggestion. We have put the muscle tone before the urinary symptoms.

References

[1] Tsuchimochi K, Morioka T, Murakami N, Yamashita F, Kawamura N. Huge multiple spinal extradural meningeal cysts in infancy. Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery 2019;35(3):535-540[PMID:30470887 doi:10.1007/s00381-018-4009-1]

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[3] Tokmak M, Ozek E, Iplikcioglu AC. Spinal Extradural Arachnoid Cysts: A Series of 10 Cases. Journal of neurological surgery Part A, Central European neurosurgery 2015;76(5):348-352[PMID:26008955 doi: 10.1055/s-0035-1547360]

[4] Fukumoto H, Samura K, Katsuta T, Miki K, Fukuda K, Inoue T. Extensive Multilocular Spinal Extradural Meningeal Cyst That Developed 16 Years After Traumatic Brachial Plexus Injury: A Case Report. World neurosurgery 2016;86-510-e515-510. [PMID:26485418 doi: 10.1016/j.wneu.2015.10.027]

[5] Liu JK, Cole CD, Sherr GT, Kestle JR, Walker ML. Noncommunicating spinal extradural arachnoid cyst causing spinal cord compression in a child. Journal of neurosurgery 2005;103(3 Suppl):266-269[PMID:16238081 doi: 10.3171/ped.2005.103.3.0266]

[6] de Oliveira RS, Amato MC, Santos MV, Simao GN, Machado HR: Extradural arachnoid cysts in children. Child's nervous system: ChNS : official journal of the International Society for Pediatric Neurosurgery [PMID: 17628807 DOI: 10.1007/s00381-007-0414-6]

[7] Marbacher S, Barth A, Arnold M, Seiler RW: Multiple spinal extradural meningeal cysts presenting as acute paraplegia. Case report and review of the literature. Journal of neurosurgery Spine [PMID: 17542516 DOI: 10.3171/spi.2007.6.5.465]

[8] Payer M, Bruhlhart K: Spinal extradural arachnoid cyst: review of surgical techniques. Journal of clinical neuroscience : official journal of the Neurosurgical Society of Australasia [PMID: 21256754 DOI: 10.1016/j.jocn.2010.07.126]

[9] Samura K, Morioka T, Miyagi Y, Nagata S, Mizoguchi M, Mihara F, Sasaki T: Surgical strategy for multiple huge spinal extradural meningeal cysts. Case report. Journal of neurosurgery [PMID: 17941494 DOI: 10.3171/PED-07/10/297]

[10] Suryaningtyas W, Arifin M: Multiple spinal extradural arachnoid cysts occurring in a child. Case report. Journal of neurosurgery [PMID: 17330546 DOI: 10.3171/ped.2007.106.2.158]

[11] Takagaki T, Nomura T, Toh E, Watanabe M, Mochida J: Multiple extradural arachnoid cysts at the spinal cord and cauda equina levels in the young. Spinal cord [PMID: 16010273 DOI: 10.1038/sj.sc.3101799]