

Peer review file

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Reviewer A

Comment 1: It is a case series of a heterogeneous population of different types of giant cervicothoracic junction tumors. Although the tumor type and localization is quite rare, the surgical results confirm the high surgical experience. Nevertheless, from a scientific point of view, the series of cases is too heterogeneous and the evaluation of safety and risk factors need a control group and a comparison with another surgical approach.

Reply 1: The patient cohort is heterogeneous in terms of pathology, So we recorded the origin of tumors in table 2. Our paper focused on technology exchange. And before 2014, we didn't find a suitable surgical incision. Several approaches were tried in our center. We tried reverse "L" surgical approach from August 2014. So we didn't set up a control group. Longer-term prospective data and patient follow up is needed to fully evaluate the outcomes of this technique in comparison to other operative approaches.

Changes in the text: In the last paragraph of the discussion, we acknowledged the shortcomings of lack of control group.

Comment 2: Tables should contain more data (for example: patients' demographic data).

Reply 2: The patients' demographic data, symptomatology and preoperative pathological diagnosis were recorded in table 1. The origin of tumors, as well additional vascular procedures were recorded in table 2.

Changes in the text: We added more technical details in Table 1 and Table 2.

Comment 3: English language need major revision.

Reply 3: English language have been made major revision.

Changes in the text: We used red color of text to show the changes.

Reviewer B

Comment 1: In the first part of the results, those additional vascular procedures, as well the morbidities could be easier to read and understand in a table.

Reply 1: The additional vascular procedures and numbers were recorded in table 2.

Comment 2: As your paper focus on technical details, can you consider including more clinical photos to explain the advantages of this approach?

Reply 2: We added two more photos in the paper. One is "Head was rotated 30-45° away from the tumor (Figure 2)", the other is "the upper sternum was fixed with butterfly plate (Figure 4).

Changes in the text: We added two more photos in the paper.

Comment 3: You report to operate several malignant tumors in this cohort, some questions arise:

- 1) Did those patients had a previous biopsy?
- 2) What was the rate of R0 resection on these cases?
- 3) You report 4 lymphoma cases, why that patients were operated?
- 4) On those 4 pancoast tumors, surgery was after chemo-radiation?

Reply 3:

1) 19 patients underwent preoperative pathological puncture. 2 patients didn't undergo preoperative puncture, because chest-enhanced CT showed rich blood and obvious enhancement which suggested they were angiomas.

Changes in the text: We have modified our text as advised.

2) R0 resection rate is 85.7%. 3 cases of neurogenic tumors couldn't get R0 resection because the tumor originated from the spinal cord. The other tumors underwent R0 resection.

Changes in the text: we added some data in the paper. (see table 2).

3) 19 patients underwent preoperative pathological puncture. 4 results were epithelial tissue. But the 4 epithelial tumors have invaded adjacent structures. We highly doubted they were malignant. We resected them and adjacent structures. The postoperative pathological diagnosis were lymphomas.

Changes in the text: We have added some data.

4) 4 bronchogenic tumor patients underwent neoadjuvant radiotherapy. They were treated with the radiotherapy dose 30 - 45 Gy.

Changes in the text: We have added some data in the paper.

Reviewer C

Comment 1: Giant Tumors of the Cervicothoracic Junction are few, so the experience sharing is very important. In recent days, there are few articles talking about the tumor over this region; however, the follow up period should be longer.

Reply 1: The paper only completed mid-term follow-up. Longer-term prospective data and patient follow up is needed to fully evaluate the outcomes of this technique.

Changes in the text: In the last paragraph, we noted the shortcomings of this paper.

Reviewer D

The authors obviously see a very high volume of such complex cases in such a short period of time and they should be congratulated for their work, as they report no hospital death or reoperations. However, my concern is that this manuscript does not add anything valuable to the current literature. Overall, it is also poorly written. While the authors comment that L-shaped incisions have better cosmesis, lesser trauma, and improved outcomes – they don't have a control group. Other outcomes that should be reported should be preoperative biopsy, neoadjuvant treatment/ tumor response, R0 resection, and adjuvant radiation (dose and why).

Comment 1: Overall, it is also poorly written.

Reply 1: English language have been made major revision.

Changes in the text: We used red color of text to show the changes.

Comment 2: While the authors comment that L-shaped incisions have better cosmesis, lesser trauma, and improved outcomes – they don't have a control group.

Reply 2: Our paper focused on technology exchange. And before 2014, we didn't find a suitable surgical incision. Several approaches were tried in our center. We tried reverse "L" surgical approach from August 2014. So we didn't set up a control group. Longer-term prospective data and patient follow up is needed to fully evaluate the outcomes of this technique in comparison to other operative approaches.

Changes in the text: In the last paragraph of the discussion, we acknowledged the shortcomings of lack of control group.

Comment 3: Other outcomes that should be reported should be preoperative biopsy, neoadjuvant treatment/ tumor response, R0 resection, and adjuvant radiation (dose and why).

Reply 3: 19 patients underwent preoperative biopsy. 2 patients didn't undergo preoperative puncture, because chest-enhanced CT showed rich blood and obvious enhancement which suggested they were angiomas. 4 bronchogenic tumor patients underwent neoadjuvant radiotherapy. They were treated with the radiotherapy dose 30 - 45 Gy. R0 resection rate is 85.7%. 3 cases of neurogenic tumors couldn't get R0 resection. The other tumors underwent R0 resection. Patients didn't undergo adjuvant radiation because the trauma was too huge and they need more time to recover. But 4 cases of thyroid adenocarcinoma underwent adjuvant radionuclide therapies and 4 cases of bronchogenic tumors were treated with platinum-based adjuvant chemotherapy.

Changes in the text: We have added some data and have modified our text as advised. (see the section of results)