

Peer Review File

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Reviewer A

Comment 1: I would like to congratulate the authors for the particularly good outcomes for a large population. Given the design of the study, drawing conclusions or relationships regarding perioperative adjuvant therapy is not possible and can be somehow confusing. Same issue when comparing the overall survival for the different techniques: robotic, MIE (Minimally Invasive Esophagectomy) and open.

Reply 1: Thank you very much for the valuable comment. We change the method to describe the survival of ESCC patients who received neoadjuvant treatment or not. And emphasize in the article that the result is only represent for 2017 cohort at SCH. As for different techniques, we delete the conclusion of them due to the patients' selection in 2017. Instead, we discuss the influence of different techniques and the limitation in the discussion part.

Changes in the text:

1. Figure 11 is changed by "The OS and CSS of neoadjuvant therapy in ESCC patients (propensity score matching, n=55)"
2. In the results part of abstract, "There were no significant survival differences between with or without preoperative treatment" is deleted.
3. In the key findings, "The exact beneficiaries of neoadjuvant therapy were still unclear in 2017 at SCH" is changed by "The 5-year OS of patients with esophageal cancer can reach 52.5% after surgical treatment in 2017 at SCH".
4. In the introduction, "This report shows that the window of effectiveness of neoadjuvant therapy was very narrow in 2017" is changed to "The beneficiaries of neoadjuvant therapy was still not clear in 2017 at SCH".
5. In statistical analysis part, we supplement the describe of "To explore the probable survival benefits of neoadjuvant therapy, propensity score match (PSM) was used in ESCC patients".
6. In the survival analysis part of results, we change the description by "To explore the probable survival benefits of neoadjuvant therapy, 68 pairs of ESCC patients with neoadjuvant treatment or not were analyzed through propensity score match (PSM) (Figure 11, Table S1)", and delete the former description about neoadjuvant treatment and different techniques.
7. In the fourth paragraph of discussion, "Thus, our long-term survival results confirm that the beneficiaries of neoadjuvant therapy were still unclear in 2017 cohort. Among stage cII-III patients, there was no significant survival difference between the neoadjuvant group and the non-neoadjuvant group" is changed by "Thus, the beneficiaries of neoadjuvant therapy were still unclear in 2017 cohort".

Comment 2: A few more information regarding technical details could add valuable information as to how the authors achieved particularly good surgical outcomes. Number of lymph nodes harvested, LOS, anastomotic technique, among others.

Reply 2: Thanks for the valuable comment to let us realize good technical details are the basement of good surgical outcomes and better survival. And we'd like to share the details of

our surgical techniques.

Changes in the text:

1. We add a table 17 to describe some detail information about LOS, length of ICU stay and lymph node examined. As for more surgical details, they are described in table 2 and table 3.
2. In the esophagectomy part of “Resection”, we add the description about lymph node dissection: “622 patients underwent lymph node dissection, with a median of 17 lymph nodes examined (Table 17), meeting the NCCN guidelines(9)”.
3. In the “complications” part, we add the description about postoperative intensive care: “Following esophagectomy, our patients were routinely admitted to the ICU to prevent postoperative emergencies. As a result, the median length of ICU stay is two days (Table 17)”.

Comment 3: I see that 12% of the patients that underwent esophagectomy had **stage 4 disease**, Could the authors elaborate about this? Were they diagnosed as stage 4 after surgery, before?

Reply 3: Thanks for your interest in this point. According to AJCC 8th, we evaluated the staging of patients both before and after surgery. For the staging before surgery, we present as clinical stage (cStage), and pathological stage (pStage) for the postoperative staging according to the pathological results. In the Table 12, 78 (12.4%) patients staged IV after surgery.

Changes in the text:

1. In the pathological evaluation part of “Resection”, we add the description of staging: “Notably, 251 cases (40.0%) were categorized as pStage III and 78 cases (12.4%) were categorized as pStage IV after esophagectomy (Table 12)”

Reviewer B

The authors reported annual report of the surgical treatment in Shanghai Chest Hospital, 2017. They previously reported annual report of the patients in 2016. It seems to be better to describe any change or difference of data every year, if any.

Comment 1: The survival of patients underwent esophagectomy in 2017 exhibited similar trends with the 2016 cohort. Is there any change, trend, or different point on the outcomes of the patients in 2017 compared to those in 2016?

Reply 1: Thank you very much for the valuable opinion. We compare each point of survival in the two curves (Figure 4). The 5-year-OS raised to 52.9% in 2017 from 51.8% in 2017, the survival patterns were similar among the two cohorts. Although the 5-year OS of 2017 cohort is slightly higher than that of 2016 cohort (52.5% vs 51.8%), 1-year OS presents opposite results (83.2% vs 86.5%).

Changes in the text:

1. In the survival analysis paragraph, we add a description “Although the 5-year OS of 2017 cohort is slightly higher than that of 2016 cohort (52.5% vs 51.8%), 1-year OS presents opposite results (83.2% vs 86.5%)” to compare the differences between the survival pattern of 2016 and 2017 cohorts.

Reviewer C

Comment: The authors and the Esophageal Cancer Team at Shanghai Chest Hospital should be commended on their results at this high volume center. Large data sets such as this are useful. I have only minor revisions that need to be addressed. Most of these are grammatical in nature.

Reply: Thanks very much for the valuable corrections of these grammatical mistakes. We have made corresponding modifications to these opinions. For the detailed modification and line number, you can refer to **the revised version** (Track changes) article. Thanks again for your carefulness and patience.

Comment 1: Line 15. “summarize” should be summary. “Based on database” should be based on the database.

Changes in the text: Line 43. “All patients who received surgical treatment of esophageal cancer at SCH in 2017 were given a detailed summary of clinical information based on the database of SCH.”

Comment 2: Line 16. Change “their survival condition” to survival; “analysis” should be analyses

Changes in the text: Line 44. “Kaplan-Meier method was used to present their survival condition, subgroup analyses and multivariate COX regression analysis were used to estimate the potential risk factors for prognosis.”

Comment 3: Line 17. Consider changing to estimate the potential risk factors for prognosis.

Changes in the text: Line 45. “Kaplan-Meier method was used to present their survival condition, subgroup analyses and multivariate COX regression analysis were used to estimate the potential risk factors for prognosis.”

Comment 4: Line 19. “Surgery” should read surgical

Changes in the text: Line 47. “In 2017, a total of 663 patients received surgical treatment”

Comment 5: Line 20. Change to Of the patients who underwent

Changes in the text: Line 48. “Of the patients who underwent esophagectomy”

Comment 6: Line 21. Change “mainly” to the majority of which was

Changes in the text: Line 49. “majority of which was postoperative treatment (47.9%)”

Comment 7: Line 23. Consider further clarifying that complete resection means R0

Changes in the text: Line 52. “Complete resection (R0) was achieved in 90.3% of esophagectomy patients”

Comment 8: Line 46. Change to in the future

Changes in the text: Line 75. “Annual reports of a high-volume single center are valuable records of past medical experience and references for treatment guidelines in the future.”

Comment 9: Line 48. Change to will be proven in the following reports

Changes in the text: Line 77. “With more standardized and goal-directed multidisciplinary treatment, the benefits of neoadjuvant treatment may be more clearly demonstrated in the upcoming reports”

Comment 10: Line 49. Change received to who received.

Changes in the text: Line 80. “Since the survival and safety of patients who received esophagectomy are acceptable”

Comment 11: Line 49/50. “Postoperative complications should be noticed more to improve

the quality of life”. This phrasing should be changed to make it more readable.

Changes in the text: Line 80-82. “Since the survival and safety of patients who received esophagectomy are acceptable, how to reduce postoperative complications and improve the patients’ quality of life should be the next key issue”

Comment 12: Line 53. Change “And China” to just China. Or say something such as “At the national level, China has the highest incidence.

Changes in the text: Line 85. “China had the highest number of incident cases at the national level”

Comment 13: Line 54. Change SCH was to SCH is summarized here.

Changes in the text: Line 87. “the third annual report for SCH is summarized here”

Comment 14: Line 56. Change patients were to patients are

Changes in the text: Line 88. “and survival information of patients are described in this report”

Comment 15: Line 61. Sentence starting with Until 2017 needs to grammatically re-organized.

Changes in the text: Line 93-95. “In 2017, preoperative neoadjuvant treatment still had not been recommended in our clinical practice like in Japan.”

Comment 16: Line 70. Was to has been or say was established in 2014.

Changes in the text: Line 104. “a prospective database of esophageal cancer was established in 2014”

Comment 17: Line 71. Were to was. Consider skipping the numeration.

Changes in the text: Line 105-107. “The following patients’ information was recorded: Baseline characteristics, diagnosis, tumor related information, treatment relevant information perioperative outcomes, pathology results and survival information”

Comment 18: Line 76. Change non-positive discovery in both resection margins to negative resection margins.

Changes in the text: Line 112. “R0 resection was defined as negative resection margins”

Comment 19: Line 85. Patients received to patients who received

Changes in the text: Line 122. “Clinical data of patients who received surgical treatments”

Comment 20: Line 87. Patients received to patients who received.

Changes in the text: Line 124. “a total of 663 patients who received esophagectomy”

Comment 21: Line 89. Which to and were

Changes in the text: Line 126. “three of them who received esophagectomy the same year after ESD were only included in ESD cohort”

Comment 22: Line 90. Characteristics was to characteristics were

Changes in the text: Line 128. “baseline characteristics were analyzed in all 663 patients”

Comment 23: Line 91. Consider changing “a total of” to “the”

Changes in the text: Line 129. “the 610 patients who received esophagectomy were reviewed”

Comment 24: Line 92. Patients received to patients who received

Changes in the text: Line 129. “the 610 patients who received esophagectomy were reviewed”

Comment 25: Line 93. Change to after the operation or after surgery

Changes in the text: Line 130. “18 patients who were lost to follow-up in the first year after surgery”

Comment 26: Line 99. Change to The diagnosis of patients was confirmed

Changes in the text: Line 137. “The diagnosis of patients were was confirmed by esophagogastroduodenoscopy”

Comment 27: Line 114. Consider change operation to approaches.

Changes in the text: Line 153. “McKeown and Ivor-Lewis approaches through right thoracic approach were common options”

Comment 28: Line 116. Change of to or

Changes in the text: Line 154. “thoroscopic or robotic-assisted”

Comment 29: Line 117 change was the mainstream to were the mainstream

Changes in the text: Line 155. “were the mainstream in our center”

Comment 30: Line 119. Change through left thoracic approach to with a left thoracic approach or through the left chest

Changes in the text: Line 158. “with a left thoracic approach or trans-hiatal approach”

Comment 31: Line 124. Change For patients underwent to For patients who underwent

Changes in the text: Line 164. “For patients who underwent circumferential resection”

Comment 32: Line 134. Change to For patients with a tumor

Changes in the text: Line 173. “For patients with a tumor located in the upper thoracic esophagus or neck”

Comment 33: Line 144. For “A P value less...” recommend saying A two-tailed test P-value”

Changes in the text: Line 184. “A two-tailed test P-value less than 0.05 two-sided was considered statistically significant”

Comment 34: Line 153. Line starting with Body needs to be grammatically re-worded.

Changes in the text: Line 193/154. “In of 54 (8.1%) patients, their BMI were less than 18.5 which was considered as malnourished”

Comment 35: Line 159. Change all to the 663 patients who received

Changes in the text: Line 200. “Of all the 663 patients who received tumor resection,”

Comment 36: Line 160. Consider changing dissatisfied to unsatisfactory results of

Changes in the text: Line 201. “Due to unsatisfactory results of endoscopic resection”

Comment 37: Line 170. Change substitute organ to conduit

Changes in the text: Line 211. “The gastric tube was used in 97.8% of patients for conduit”

Comment 38: Line 171. 522 should be 540

Changes in the text: Line 213. “two fields (thoracic + abdominal) dissection was performed in 540 (86%) patients”

Comment 39: Line 172 (83.1%) should be (86%)

Changes in the text: Line 213. “two fields (thoracic + abdominal) dissection was performed in 540 (86%) patients”

Comment 40: Line 184. Change primarily characterized to “most commonly” and consider removing pStage and changing to just pT3

Changes in the text: Line 227. “The pathological depth of tumor invasion was most commonly pT3”

Comment 41: Line 188 is referring to No lymphovascular invasion. Also recommend changing to lymphovascular

Changes in the text: Line 232. “117 patients (18.6%) exhibited no lymphovascular invasion”

Comment 42: Line 191 The should not be capitalized

Changes in the text: Line 234. “the pathological depth of tumor invasion was dominated by”

Comment 43: Line 194. I am not sure what this line is saying

Changes in the text: Line 236. “Unfortunately, the depth of tumor invasion of three cases were

failed to be defined (one case in pT1a and two cases in pT1b)”

Comment 44: Line 199. Change to Of the patients who received

Changes in the text: Line 242. “Of the patients who received perioperative treatment”

Comment 45: Line 202. Change were to are

Changes in the text: Line 245. “The preoperative neoadjuvant regimens are mentioned summarized in Table 5”

Comment 46: Line 206. Change to patients who received esophagectomy experienced postoperative complications, with major complications (C-D \geq III) documented in.

Changes in the text: Line 251-253. “A total of 309 (49.2%) patients who received esophagectomy experienced postoperative complications, with major complications (C-D \geq III) documented in 87 patients”

Comment 47: Line 215. Change to Most patients

Changes in the text: Line 261. “Most patients were followed up until June 2023”

Comment 48: Change to in the ESD cohort. Change to in the esophagectomy cohort

Changes in the text: Line 262. “The median follow-up time was 60.2 [IQR, 36.33-60.87] months in the ESD cohort and 60.87 [IQR, 60.4-60.93] months in the esophagectomy cohort.”

Comment 49: Line 217. Change who to with a follow up of less. Change from survival to from the survival analysis

Changes in the text: Line 263-264. “Eighteen patients with follow-up of less than one year were excluded from the survival analysis”

Comment 50: Line 217. Change to In the overall cohort, or just say Overall, the...

Changes in the text: Line 264. “Overall, the 1-, 2-, 3-, 4-, and 5-year OS rates were”

Comment 51: Line 223. Change to As neoadjuvant treatment or As a neoadjuvant treatment approach was mostly utilized for patients with stage cIII, and RAE...

Changes in the text: we delete this sentence

Comment 52: Line 234. Change to every year is a huge

Changes in the text: Line 285. “With more than 600 esophagectomies every year are of huge workload.”

Comment 53: Line 234. Change 3 of whom had more than 400 surgeries experience. Needs to be phrased differently to be clearer.

Changes in the text: Line 285/286. “Our surgeries come from 8 eight surgeons, and most of them had more than 400 surgeries experience.”

Comment 54: Line 237. I do not understand what this is trying to say

Changes in the text: Line 287/288. “The quality of esophagectomy can be fully guaranteed.”

Comment 55: Line 248. EUS staging comment should be referenced.

Changes in the text: Line 302. “correct staging by EUS is critical(13)”

Comment 56: This section of the discussion should include a comment on the lack of PET scan use in staging.

Changes in the text: Line 295. “and PET scan was recommended for staging, they were still not commonly used.”

Comment 57: Line 251. Change to showed the best survival. The rest of this sentence does not make sense and needs changing.

Changes in the text: Line 305. “Of the different surgical approaches, patients who received RAE showed the best survival (Figure 11)”

Comment 58: Line 252. Patients' selection should be patient selection

Changes in the text: Line 306. "However, this result may be influenced by patient selection and therefore unreliable."

Comment 59: Line 254. Left thoracic should say left chest. Some should be changed for "any"

Changes in the text: Line 308/309. "Most of open surgeries were through the left chest because it is easier to remove esophageal cancer with aorta invasion, and any necessary combined aortic resection can be performed at the same time"

Comment 60: Line 255. Resection were changed to resection was.

Changes in the text: Line 310. "Combined tracheal resection was used in attempt to treat esophageal cancer with airway invasion"

Comment 61: Line 256. Trying to while trying. Invaded change to invasion.

Changes in the text: Line 310/311. "Combined tracheal resection was used in attempt to treat esophageal cancer with airway invasion"

Comment 62: Line 264. Change auxiliary treatment to any additional treatment.

Changes in the text: Line 320. "They preferred to receive surgery first and then returned to the local area for any additional treatment"

Comment 63: Line 268. Can keep it, but is an understatement. The safety of surgical mgmt of esophageal cancer at SCH is excellent.

Changes in the text: Line 325. "In the past medical record of SCH, the safety of surgery is relatively acceptable"

Comment 64: Line 270 Advantage to advantages. Recommend removing "presented in operation"

Changes in the text: Line 327. "With the emphasis on mediastinal lymph node dissection and the advantages of RAE"

Comment 65: Line 271. Change to expose the recurrent.

Changes in the text: Line 329. "expose the recurrent laryngeal nerve"

Comment 66: Line 275. Change the phrasing to make it more readable.

Changes in the text: Line 332-335. "In the future, the prevention of recurrent laryngeal nerve injury may prove to be essential for optimizing patient outcomes and enhancing overall quality of life."

Comment 67: Line 277. Change to say something like We recognize that our study has limitations.

Changes in the text: Line 337. "We recognize that our study has limitations."

Comment 68: Line 278. It is worried needs to be changed to make grammatically correct.

Changes in the text: Line 338. "Perhaps our clinical staging is still not accurate enough"

Comment 69: Line 281. Change to something such as systemic and radiation treatment.

Changes in the text: Line 340/341. "In addition, non-surgical patients who received internal medical treatment alone were not included in the analysis"

Comment 70: Line 285. Delete "still"

Changes in the text: Line 346. "The focus of this report is to describe the long-term survival after surgical treatment of esophageal cancer in a single center in China"

Comment 71: Line 287 add a reference after 59.9%

Changes in the text: Line 348. "which is lower than Japan's 2015 results (59.9%)(3)"

Comment 72: Line 288. Change But in to just In

Changes in the text: Line 349. “In subgroup analysis,”

Comment 73: Line 289. Change Advanced to Therefore, advanced

Changes in the text: Line 350/351. “Therefore, advanced tumor stage may be the main reason for the above differences in overall survival.”

Comment 74: Line 290. Change to for the above

Changes in the text: Line 351. “Therefore, advanced tumor stage may be the main reason for the above differences in overall survival.”

Comment 75: Line 290. “We cannot analyze the reason more precisely.” Consider saying something such as we cannot compare these groups directly because of factors such as induction treatment, staging, etc

Changes in the text: Line 352. “We cannot compare these groups directly because of factors such as induction treatment, staging, and so on”

Comment 76: Table 3. At the bottom 26 of 63 should say 26 of 62.

Changes in the text: Table 3. “26 of the 62 patients confirmed cervical lymph node metastases”

Comment 77: Table 5 Column Header Cases (n=69, %) should be changed so it is the same as the other column headers

Changes in the text: Table 5. “Cases (%)”

Comment 78: Table 7 and Table 8. Recommend changing to read of esophagectomy specimens and endoscopic treatment specimens, respectively

Changes in the text: Table 7/8. “Table 7 Histological classification of esophagectomy specimens/ Table 8 Histological classification of endoscopic treatment specimens”

Comment 79: Table 9. Capitalize esophagectomy and endoscopy

Changes in the text: Table 9. “Esophagectomy/Endoscopy”

Comment 80: Table 10, again add specimen to end of esophagectomy. At bottom of chart where it reads all the 32 pT4b I would remove “the 32” to simplify

Changes in the text: Table 10. “Table 10 Pathological depth of tumor invasion of esophagectomy specimens” “all pT4b patients received R2 resection”

Comment 81: Table 11. Recommend changing to lymph-vascular to lymphovascular (Found twice here)

Changes in the text: Table 11. “Lymphovascular invasion”

Comment 82: Table 12. Capitalize esophagectomy and endoscopy

Changes in the text: Table 12. “Esophagectomy/Endoscopy”

Comment 83: Table 13. Add specimen at the end of treatment. After tumor-node-metastasis delete the semicolon

Changes in the text: Table 13. “Pathological depth of tumor invasion of endoscopic treatment specimens”

Comment 84: Table 14 also delete the semicolon at the end of Syndrome

Changes in the text: Table 14. “ARDS, Acute Respiratory Distress Syndrome”

Comment 85: Table 16. Not sure the *comment is necessary

Changes in the text: Table 16, we delete the *comment.

Comment 86: Figure 1 description. “Flowchart of the analysis procedure” does not make sense. Consider saying something else here.

Changes in the text: Figure 1. “Figure 1 Flowchart of this report”

Comment 87: Figure 3. Explain the abbreviations ESCC and AC here. Change patients

received to patients who received.

Changes in the text: Figure 3. “CSS, cancer specific survival; ESCC, esophageal squamous cell carcinoma; AC, adenocarcinoma”

Comment 88: Figure 4. Change patients received to patients who received.

Changes in the text: Figure 4. “The OS and CSS of ESCC patients who received”

Comment 89: Figure 5. Change patients received to patients who received.

Changes in the text: Figure 5. “The OS and CSS of ESCC patients who received”

Comment 90: Figure 8. Change patients received to patients who received.

Changes in the text: Figure 6. “The OS and CSS of ESCC patients who received”

Comment 91: Figure 9. Change patients received to patients who received.

Changes in the text: Figure 9. “The OS and CSS of ESCC patients who received”

Comment 92: Figure 11. Change patients received to patients who received.. change technique to techniques. Again show abbreviations RAE and ME

Changes in the text: Figure 11. “The OS and CSS of pStage II-III (AJCC 8th edition) ESCC patients who received different esophagectomy techniques. OS, overall survival; CSS, cancer specific survival; RAE, robot-assisted esophagectomy; MIE, minimal invasive esophagectomy; AJCC, American Joint Committee on Cancer; ESCC, esophageal squamous-cell carcinoma.”

Comment 93: Figure 12. Show abbreviations for NAT and AT

Changes in the text: Figure 12. “The OS and CSS of neoadjuvant therapy in ESCC patients (propensity score matching, n=55). OS, overall survival; CSS, cancer specific survival; NAT, neoadjuvant therapy; AT, adjuvant therapy; AJCC, American Joint Committee on Cancer; ESCC, esophageal squamous-cell carcinoma.”