

Peer Review File

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Reviewer A

The topic of our study, which focuses on questionnaires regarding patients' quality of life after esophagectomy and reconstruction, is quite interesting. I have a few questions.

1. Why did the authors choose to conduct the EORTC assessment at only the 30-month mark? What were the EORTC results at other postoperative time points?"

Response: Thank you for your comments. We chose to evaluate the quality of life (QoL) at the 30-month and above mark because esophagectomy will alter the structure of the digestive tract and affect its function after surgery affecting the patient's QoL and there have been substantial research on early postoperative QoL, including our previous research (Wang Y, Tian X, Zhang M, He Y. Supportive care in esophageal cancer patients undergoing postoperative home enteral nutrition. *Journal of Nursing Science*, 2021, 36(9):96-98). However, there is scarce data on long term QoL of the patients. Therefore, we choose 30-month and above as the analytic mark.

2. Why do patients experience physiological improvement after the first 6 months postoperatively? Have any physiological reasons been considered? Please show the discussion part by the references.

Response: Thank you for your constructive comments. The postoperative recovery of the digestive tract after esophagectomy is a slow process, which was found to be 6 months in our study, which is similar to the results of 3-6 months in the past reports. We believe this may due to the adaptation of the structure and function of the digestive tract. Currently, there are few research on physiological changes within the first 6 months after esophagectomy. we have modified our text as advised.

Changes in the text: Page 13, line 11-12

3. What is the analysis regarding the relationship between questionnaire results and complications? Additionally, could you provide the results regarding complications?

Response: Thank you for your comments. We listed the major complications of the patients after surgery (see Table 4). Our analysis showed that the 6 symptoms in EORTC-OG25 questionnaire were not associated with the total complication rates postoperatively (see Table 5). Further analysis showed that the proportions of dysphagia in patients with anastomotic fistula and non-anastomotic fistula were 13/21 (61.9%) and 52/325 (16.0%), respectively ($p < 0.01$). The increase of dysphagia in patients with anastomotic fistula may be due to stenosis formed in the process of anastomotic leakage healing.

Changes in the text: Page 9, line 19-21; Page 10, line 1-2; Page 27, table 4, 5.

Reviewer B

Interesting patient evaluating retrospectively >300 patients with more than 30 months of

follow-up and without recurrence after esophagectomy. However, the definitions in that paper are not clear. The fact that patients are eating "regular food" does not mean the patients have regular eating habits. We do not have information about calories, source of calories or specific foods that are not tolerated. Moreover, if we go for definitions patients still had about 10% lower weight than at baseline and authors are not defining them as becoming all malnourished. There are no additional nutritional measures such as biometrics, biochemical markers, or functional status. Therefore, specifically discussing their nutrition status at 30m is very difficult. The QOL table is confusing to me.

Response: Thank you for your comments. As a retrospective study, it is difficult for us to obtain the nutritional indices such as biometrics, biochemical markers, or functional status at different timings. Therefore, we measured the nutritional status of the patients mainly through their weight changes at different timings. Although the body weight of the patients on average was still 7% lower at the last follow-up as compared with their baseline data, the weight have been stable and slowly increasing. Chinese food is extensive and profound, with significant cultural differences between the north and south. Therefore, we divide the patient's dietary guidance into liquid, semi liquid, soft, and common foods, and provide the corresponding energy table for the food, as shown in the attached Supplemental materials². EORTC QLQ-OG25 QoL was assessed based on the EORTC QLQ-OG 25. This scale effectively evaluates health-related QoL in patients with EC, esophageal gastric junction cancer (EGJC), and gastric cancer (GC). The scale consists of six symptoms, including dysphagia (three items), dietary limitations (four items), reflux (two items), swallowing pain (two items), pain and discomfort (two items), anxiety (two items), and 10 single items related to patients with upper gastrointestinal cancer who receive palliative treatment or potentially curative treatment or follow-up. Each item is divided into four levels, including never, a little, often, and frequent, which are assigned to 1, 2, 3, and 4, respectively. The higher the patient score is, the more serious the symptoms are. Please see Quality of life (QoL) assessment data in Method. Table 3 showed the proportions of patients with different symptoms and score. For example, reflux was consisted of 2 items, with score ranges from 2-8. Score 2 refers to no reflux and score 8 represents the most severe reflux. Proportions of patients with score 2, 3, 4, 5, 6, 7, and 8 were 59.0%, 4.6%, 13.6%, 12.7%, 8.4%, 0.6%, and 1.2%. The scores of other symptoms were similar to that of reflux. (see Table 3).

Changes in the text: Page 6, line 10; Page 26, table3; Supplemental materials²