



Favorable clinical outcomes of total robotic esophagectomy for esophageal cancer

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This article by Na and co-authors analyzed outcomes of total-robot-assisted minimally invasive esophagectomy (T-RAMIE) and compared them with those of hybrid-RAMIE (H-RAMIE) (1). T-RAMIE was defined as esophagectomy performed robotically in both the thoracic and abdominal cavities, and H-RAMIE was defined as laparotomy performed in the abdominal cavities instead of the robotic procedure.

Esophagectomy is very invasive, and its complications have been reported to correlate with worse long-term prognosis; thus, it is necessary to strive to prevent the occurrence of complications (2-4). Although the incidence of pulmonary complications was reduced by introducing thoracoscopic surgery on esophagectomy, pain in the abdominal wounds may also contribute to the occurrence of pulmonary complications (5). In this report, the incidence of all and severe complications did not differ between the T-RAMIE and H-RAMIE groups but was somewhat higher in the H-RAMIE group. Despite the same thoracic procedure as the robot operation performed in both groups, it is necessary to clarify whether pulmonary complications due to aspiration caused by recurrent laryngeal nerve palsy or due to difficulty in expectoration of sputum is associated with pain.

In addition, as a study comparing the approaches of surgery, information on the operation time and amount of bleeding in the chest and abdominal operations in each group is scarce.

Regarding long-term results, there is no significant difference between the two groups due to the small number of cases, but the survival curves are parallel, and a significant difference may be observed when the cases are accumulated. It would be even more interesting to discuss this survival curve.

Recently, the number of facilities that perform laparoscopy-guided abdominal operations has been increasing. We also hope that prospective studies will verify and report the comparison between T-RAMIE and laparoscopic abdominal procedure hybrid surgery.

This paper focuses on the short- and long-term effects of abdominal surgical approaches in esophageal cancer surgery. Our propensity score-matched comparison showed that T-RAMIE may become a standard procedure in future.

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Footnote

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Ethical Statement: The authors are accountable for all

aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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References

1. Na KJ, Park S, Park IK, et al. Outcomes after total robotic esophagectomy for esophageal cancer: a propensity-matched comparison with hybrid robotic esophagectomy. *J Thorac Dis* 2019;11:5310-20.
2. Goense L, Meziani J, Ruurda JP, et al. Impact of postoperative complications on outcomes after oesophagectomy for cancer. *Br J Surg* 2019;106:111-9.
3. Li KK, Wang YJ, Liu XH, et al. The effect of postoperative complications on survival of patients after minimally invasive esophagectomy for esophageal cancer. *Surg Endosc* 2017;31:3475-82.
4. Kinugasa S, Tachibana M, Yoshimura H, et al. Postoperative pulmonary complications are associated with worse short- and long-term outcomes after extended esophagectomy. *J Surg Oncol* 2004;88:71-7.
5. Berlth F, Plum PS, Chon SH, et al. Total minimally invasive esophagectomy for esophageal adenocarcinoma reduces postoperative pain and pneumonia compared to hybrid esophagectomy. *Surg Endosc* 2018;32:4957-65.

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