

〈Others〉

Postoperative Complications in Esophageal Cancer: Addressing Survival Challenges

Takeshi NAGASAKA¹⁾, Yoshio NAOMOTO²⁾*1) Department of Advanced Oncology,**2) Department of General Surgery, Kawasaki Medical School*

ABSTRACT Postoperative complications significantly affect the prognosis of esophageal cancer patients undergoing esophagectomy. This letter highlights findings by Bona *et al.*, emphasizing the roles of inflammation, immune suppression, and malnutrition in mediating these outcomes. Complications such as pneumonia (30–50% incidence) and anastomotic leakage (5–20%) are linked to prolonged recovery, systemic inflammation, and higher recurrence rates. Enhanced recovery after surgery (ERAS) protocols and minimally invasive esophagectomy techniques have shown promise in mitigating complications and expediting recovery. Exploring molecular pathways connecting inflammation to tumor progression may offer innovative therapeutic strategies. These insights underscore the importance of multidisciplinary care and targeted interventions to improve survival outcomes.

doi:10.11482/KMJ-E202551035 (Accepted on January 8, 2025)

Key words : Esophageal Cancer, Postoperative complications

DEAR EDITOR

We read Bona *et al.*'s recent article¹⁾ with great interest. It highlights the profound impact of postoperative complications on long-term survival outcomes in patients with esophageal cancer. Their study underscores the critical roles of inflammation, immune suppression, and malnutrition as mediators of these adverse outcomes.

Postoperative complications, including pneumonia and respiratory failure, affect 30%-50% of patients and remain the most common and serious issues²⁾. Anastomotic leakage occurs in 5%-20% of cases

and significantly increases the risks of mediastinitis and sepsis, prolongs hospitalization, and necessitates further interventions³⁾. As Bona *et al.* pointed out, these complications worsen systemic inflammation, leading to delayed recovery and reduced survival prospects.

We agree with the authors that chronic postoperative inflammation is crucial in promoting cancer recurrence and metastasis. Infections, such as pneumonia, have been associated with a 20%-30% decrease in 5-year survival rates, while conditions like anastomotic leaks can further increase systemic

Corresponding author
Takeshi Nagasaka
Department of Advanced Oncology, Kawasaki Medical
School, 577 Matsushima, Kurashiki, 701-0192, Japan

Phone : 81 86 462 1111
Fax : 81 86 464 1134
E-mail: takeshin@med.kawasaki-m.ac.jp

inflammation and contribute to cancer progression⁴⁾. Sarcopenia, a common preoperative condition, worsens these challenges by impairing the immune response and increasing the risk of complications⁵⁾.

We appreciate the authors' focus on innovative strategies to minimize complications. Enhanced Recovery After Surgery protocols, including standardized pain management, early mobilization, and improved nutritional support, have effectively reduced postoperative morbidity and enhanced recovery. Additionally, minimally invasive esophagectomy techniques further reduce surgical trauma, potentially alleviating the inflammatory responses that lead to complications⁶⁾. Furthermore, examining the molecular mechanisms that connect inflammation to tumor progression, as emphasized by Bona *et al.*, may lead to targeted therapies designed to improve survival outcomes.

In conclusion, we commend Bona *et al.* for their thorough analysis. Their findings highlight the pressing need for multidisciplinary strategies to reduce complications, optimize perioperative care, and address inflammation to enhance survival rates for esophageal cancer patients.

SINCERELY

Takeshi Nagasaka¹⁾

Yoshio Naomoto²⁾

Department of Advanced Oncology¹⁾ and General Surgery²⁾, Kawaki Medical Hospital

DECLARATIONS

Competing interests

The authors declare that they have no competing interests.

Author Contributions

TN and YN drafted the manuscript. All authors have read and approved the final manuscript.

Funding

None.

REFERENCES

- 1) Bona D, Manara M, Bonitta G, *et al.*: Long-Term Impact of Severe Postoperative Complications after Esophagectomy for Cancer: Individual Patient Data Meta-Analysis. *Cancers* (Basel). 2024; 16 (8).
- 2) Booka E, Takeuchi H, Nishi T, *et al.*: The Impact of Postoperative Complications on Survivals After Esophagectomy for Esophageal Cancer. *Medicine* (Baltimore). 2015; 94 (33).
- 3) Fransen LFC, Verhoeven RHA, Janssen T, *et al.*: The association Between Postoperative Complications and Long-Term Survival after Esophagectomy: A Multicenter Cohort Study. *Dis Esophagus*. 2023; 36 (6).
- 4) Sugimura K, Miyata H, Shinno N, *et al.*: Prognostic Impact of Postoperative Complications Following Salvage Esophagectomy for Esophageal Cancer after Definitive Chemoradiotherapy. *Oncology*. 2020; 98 (5).
- 5) Simonsen C, de Heer P, Bjerre ED, Suetta C, Hojman P, Pedersen BK, Svendsen LB, Christensen JF: Sarcopenia and Postoperative Complication Risk in Gastrointestinal Surgical Oncology: A Meta-analysis. *Ann Surg*. 2018; 268 (1).
- 6) Fransen LFC, Berkelmans GHK, Asti E, *et al.*: The Effect of Postoperative Complications after Minimally Invasive Esophagectomy on Long-term Survival: An International Multicenter Cohort Study. *Ann Surg*. 2021; 274 (6).