

## Editorial



# Surgical Outcomes of Patients Undergoing Gastrectomy for Gastric Cancer: Does the Age Matter?

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- ▶ See the article “Epidemiology of Gastric Cancer in Korea: Trends in Incidence and Survival Based on Korea Central Cancer Registry Data (1999–2019)” in volume 22 on page 160.
- ▶ See the article “The Clinical Impact of Advanced Age on the Postoperative Outcomes of Patients Undergoing Gastrectomy for Gastric Cancer: Analysis Across US Hospitals Between 2011–2017” in volume 22 on page 197.

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As life expectancy increases and rapid aging of the population continues to occur over the last decades, the number of elderly patients requiring treatment has also increased [1]. Gastric cancer mainly occurs in older patients, with most patients being 60 or higher, and the proportion of gastric cancer patients over 70 years old is increasing [2]. This increasing trend has resulted in an increase in elderly patients requiring radical gastrectomy.

In this issue of the *Journal of Gastric Cancer*, Park et al. [3] analyzed data from the Korea Central Cancer Registry to demonstrate the changes in the incidence and demographics of gastric cancer from 1999 to 2019. The Korean Central Registry includes information on cancer in the entire Korean population using the data of more than 150 training hospitals [4]. As such, this study is the most recent study showing all gastric cancer data in Korea over the longest period of time, therefore presenting meaningful information. Among the several changes over the past 20 years shown in this study, one notable result is that the proportion of patients over 70 years of age has increased from 29% to 37%. In other words, more than one-third of patients with gastric cancer are over 70 years of age. Considering that this trend may be further exacerbated in the future, it is imperative to put more effort into ensuring that the radical gastrectomy for elderly gastric cancer patients is both rational and beneficial.

Regarding the surgical outcomes of the elderly, many studies have reported no significant difference in postoperative complications and mortality between the elderly and non-elderly patients [5-9]. Conversely, some studies have shown an increased incidence of severe complications in the elderly, but statistically insignificant difference in postoperative mortality [10-12]. Other studies have demonstrated worse outcomes of the elderly in both postoperative complications and mortality [13,14]. The study by Lee et al. [15] is one that showed worse outcomes in the elderly. The authors analyzed the surgical outcomes of the elderly based on the National Inpatient Sample (NIS) data and identified higher in-hospital mortality rates in septuagenarians and octogenarians than in patients under 60 years of age. The validity of this study is strengthened by its use of a large-scale database, however, data regarding postoperative complications is limited and long-term data is lacking.

Several studies have indicated that the postoperative complication rate depends greatly on the number and severity of pre-existing diseases [16,17]. The elderly have a significantly higher number of medical comorbidities and are vulnerable to postoperative medical problems such as pneumonia. Postoperative complications in the elderly lead to a significant increase in costs, length of hospital stay, and patient distress and suffering. Limitations in daily life and family burdens should also not be neglected. Therefore, in view of the risk of postoperative complications, elderly patients should receive special attention. Precise risk assessment prior to surgery is also necessary, as this would aid clinicians in anticipating and dealing with complications, reducing postoperative mortality, and improving quality of care [18].

Recently, a guideline for the management of elderly patients with early gastric cancer was reported in Japan [19]. In the analysis using the nationwide data, relatively low overall survival and non-negligible postoperative 90-day mortality rates were observed, and 20% or more old patients reportedly died within 5 years after gastrectomy, mostly due to other diseases. These suggest the necessity for a less invasive treatment option and a non-invasive follow-up option for the elderly patients with a poor general condition. New indications for endoscopic submucosal dissection were also considered to avoid overtreatment with gastrectomy. Thus, flexible approaches for elderly patients should be performed in the future. Moreover, reduced treatment that goes against oncological principles for the elderly with good general condition should also be avoided. Personalized risk assessment, rationale based on evidence, and comprehensive understanding of the function and quality of life of the elderly should take precedence over age itself.

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