



Esophageal cancer treatment in elderly patients: an inconvenient truth

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We congratulate Yip, Kikuchi and Peng and their colleagues for providing their useful insights into the important topic of minimally invasive esophagectomy in elderly patients. Multiple studies show that esophageal cancer surgery in elderly patients is associated with high rates of postoperative morbidity and mortality (1,2). However, by focusing on postoperative outcomes, there is an inconvenient truth that has been concealed: the significance of the underlying disease that is often not reported in studies. Although steps have been made in the past decades to improve survival, the long-term outcome of locally advanced esophageal cancer remains poor (3). Surgical resection is the cornerstone of curative treatment. However, it is associated with significant morbidity and mortality. The question is: do we unnecessarily deprive patients of treatments that may improve survival? Second: can we select the best pathway for the individual patient?

One of the biggest issues is underrepresentation of elderly patients in clinical trials regarding esophageal cancer treatment. For example, elderly were not included in important trials investigating open versus minimally invasive surgery (4) and studies regarding the extent of lymphadenectomy (5). Moreover, elderly were not included in important studies on neoadjuvant therapy such as the CROSS trial (6). The CROSS trial demonstrated better survival after trimodality therapy with neoadjuvant chemoradiation, which is the golden standard these days in the Netherlands.

Relative contraindications for esophagectomy are comorbid illnesses, as they are associated with the risk of

complications (7). The discussion of whether advanced age is a contraindication remains unsolved. Peng *et al.* mentioned the selection bias in retrospective studies and propose the use of a modified frailty index to predict morbidity and mortality after esophagectomy. We think such an objective measure is an important step in selecting patients and should be used in studies regarding improvement of postoperative outcomes (8). Furthermore, Peng *et al.* conclude that medically complex and elderly patients are best treated at experienced, high-volume centers. We would like to complement them on this statement and would like to add that centralization is a good first step in doing so (9).

There appears to be a bias in treatment choice in elderly patients with locally advanced cancer. Although elderly might benefit from more aggressive therapy including surgery, elderly with malignancies are more cautiously approached than their younger counterparts. The question is whether this is correct, as our study and other studies showed comparable morbidity and mortality after esophagectomy in both the elderly and younger groups after careful selection of the most appropriate treatment option per patient. Moreover, elderly might not only benefit from curative treatment: a near threefold improvement in median survival was seen in elderly receiving palliative treatment for esophageal cancer (10).

In conclusion, we think further research should focus on avoiding bias in selecting elderly for surgical treatment for esophageal cancer. After all, excluding elderly from curative treatment should be based on the right reasons. Therefore,

care should be taken to avoid underrepresentation of elderly patients in research regarding esophageal cancer. It is of great importance, as this might be the way to reveal the truth regarding morbidity and mortality of elderly patients undergoing treatment for esophageal cancer.

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