

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.e-asianjournalsurgery.com

ORIGINAL ARTICLE

Gastrectomy with limited surgery for elderly patients with gastric cancer

Koji Mikami*, Kimikazu Hirano, Kitarou Futami, Takafumi Maekawa

Department of Surgery, Fukuoka University Chikushi Hospital, 1-1-1 Zokumyoin, Chikushino City, Fukuoka 818-8502, Japan

Received 21 May 2016; received in revised form 18 August 2016; accepted 2 September 2016

KEYWORDS

elderly patients;
gastric cancer;
limited surgery;
lymph node
dissection;
prognostic nutrition
index

Summary *Background/Objective:* Elderly patients with gastric cancer can receive standard gastrectomy or gastrectomy with reduced nodal dissection, i.e., limited surgery, in order to prevent postoperative complications. This study evaluated the feasibility of gastrectomy with limited surgery for elderly patients with gastric cancer.

Methods: A total of 267 elderly patients (≥ 70 years old) were divided into two groups according to the level of nodal dissection: patients who received nodal dissection according to guidelines were included in the standard surgery group (standard group), and those who received reduced nodal dissection were included in the limited surgery group (limited group). The surgical outcomes of the two groups were compared.

Results: There were 170 patients in the standard group and 97 patients in the limited group. The limited group had significantly poorer nutrition status and a significantly higher proportion with comorbidities. Morbidity and mortality were similar in both groups. Multivariate analysis showed that the overall survival rates were significantly worse in patients with advanced age, male gender, low body mass index, low prognostic nutrition index, and higher tumor stage. The disease-specific survival rate was significantly lower in the limited group than in the standard group ($p < 0.001$).

Conclusion: Gastrectomy according to the gastric treatment guidelines for elderly patients with gastric cancer is recommended. Elderly male patients with poor nutrition have poor prognosis; prognostic nutrition index < 40 . Limited surgery is a treatment option for such patients. Copyright © 2016, Asian Surgical Association. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Conflicts of interest: None.

* Corresponding author. Department of Surgery, Fukuoka University Chikushi Hospital, 1-1-1 Zokumyoin, Chikushino City, Fukuoka 818-8502, Japan.

E-mail address: mikamikj@fukuoka-u.ac.jp (K. Mikami).

<http://dx.doi.org/10.1016/j.asjsur.2016.09.002>

1015-9584/Copyright © 2016, Asian Surgical Association. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Please cite this article in press as: Mikami K, et al., Gastrectomy with limited surgery for elderly patients with gastric cancer, Asian Journal of Surgery (2016), <http://dx.doi.org/10.1016/j.asjsur.2016.09.002>

1. Introduction

Gastric carcinoma is still a major cause of mortality in Japan despite the decreased incidence of this disease. The proportion of elderly people in Japan has recently increased and is predicted to continue to increase in the coming decades: the population of patients aged ≥ 70 years increased from 14,923,000 in 2000 to 21,211,000 in 2010.¹ Several studies demonstrate that surgical risk, evaluated preoperatively according to the American Society of Anesthesiologists score, is significantly higher in elderly gastric cancer patients, mainly because of the higher rate of pre-existing comorbidities.^{2,3} Comorbidities are independently associated with the rate of postgastrectomy complications in patients with gastric cancer.^{4,5} The 90-day postoperative mortality rate is high in octogenarian patients with comorbidities.⁶ Such comorbidities may reduce the ability of elderly patients to tolerate surgical stress.⁷ Therefore, the operative procedure used for such patients should be chosen carefully. Gastrectomy with reduced nodal dissection, i.e., limited surgery is selected to prevent postoperative complications. However, gastric cancer treatments guidelines indicate that gastrectomy is the standard radical treatment for gastric cancer.⁸ Furthermore, the effect of limited surgery for elderly patients with gastric cancer remains uncertain.

Therefore, this retrospective study aimed to evaluate the feasibility of limited surgery for elderly patients with gastric cancer.

2. Methods

A total of 601 patients with histologically confirmed primary gastric carcinoma received curative gastrectomy (R0) between April 2001 and March 2011 at the Department of Surgery, Fukuoka University Chikushi Hospital, Fukuoka, Japan. They included 267 elderly patients aged ≥ 70 years who were divided into two groups according to the level of nodal dissection: patients who received nodal dissection according to guidelines were included in the standard surgery group (standard group), and those who received reduced nodal dissection were included in the limited surgery group (limited group).

Immunological and nutrition status was determined according to the Onodera prognostic nutritional index calculated by the following formula: $10 \times$ serum albumin concentration (g/dL) $+ 0.005 \times$ lymphocyte count (cells/mm²) in peripheral blood.⁹ The prognostic nutritional index cut-off was set at 40 on the basis of an original investigation. Comorbidities were evaluated according to the Charlson Risk Index.¹⁰

Surgical specimens were examined and scored according to the Japanese classification of gastric carcinoma.¹¹ According to the Japanese Gastric Cancer Treatment Guidelines 2010 (version 3),⁸ D2 lymph node dissection is indicated for potentially curable T2–T4 tumors as well as T1N+ tumors, D1 lymph node dissection is indicated for T1a tumors and cT1bN0 tumors that are histologically differentiated and ≤ 1.5 cm in diameter, and D1+ lymph node dissection is indicated for T1N0 tumors other than the above. Herein, gastrectomy with nodal dissection according

to the guidelines is considered the standard surgery, whereas gastrectomy with reduced nodal dissection is considered limited surgery. The level of nodal dissection was determined preoperatively by the surgeon on the basis of cardiopulmonary function, other comorbidities, and other patient conditions or on the basis of intraoperative findings.

Each patient's clinical course was documented, and complications during hospital stay were classified according to Clavien-Dindo criteria.^{12,13} Operative mortality was defined as Clavien-Dindo Class V within 30 days after gastrectomy. All patients were subjected to a scheduled clinical and instrumental follow-up program after discharge. Follow-up consisted of physical examination, laboratory tests, endoscopy, and ultrasonography or computed tomography. Patients were followed 5 years postoperatively or until death.

Statistical analyses were performed using SPSS version 15 (SPSS, Chicago, IL, USA). The significance of differences between groups was evaluated by the *t* test or Chi-square test where appropriate. The Cox proportional hazards model was used for multivariate analysis. Overall survival was calculated using the Kaplan-Meier method with the log-rank test. All *p* values < 0.05 were considered statistically significant.

3. Results

3.1. Patient characteristics

The characteristics of the patients included in this study are shown in Table 1. There were no significant differences between the standard group and the limited group with respect to age, sex, body mass index, hemoglobin, histological type, or tumor location. In addition, there were no significant differences between groups with respect to operative factors, the type of resection, operative time, or intraoperative blood loss. Meanwhile, the proportion of normal prognostic nutrition index, 40 and over 40, was significantly higher in the standard group than the limited group ($p < 0.001$). The number of dissected lymph nodes was significantly lower in the limited group than in the standard group ($p = 0.013$). Moreover, the Charlson Risk Index and tumor stage differed between groups: the standard group had a significantly lower Charlson Risk Index ($p = 0.006$) and more patients in Stage I.

3.2. Morbidity and mortality

Morbidity was similar between the groups. The proportions of patients in the limited group and the standard group with Clavien-Dindo Class III, Class IV, or Class V were 18.6% ($n = 18$) and 15.3% ($n = 26$), respectively (Table 2).

The mortality rate was similar between the groups. Two (2.1%) and one (0.6%) patient in the limited group and standard group died, respectively. The first patient in the limited group who died was an 83-year-old man with hypertension, renal dysfunction, and paresis due to cerebrovascular disorder. He had anastomotic leakage at the gastroduodenostomy and subsequently died owing to severe pneumonia on Day 17 postoperatively. The second

Download English Version:

<https://daneshyari.com/en/article/8831046>

Download Persian Version:

<https://daneshyari.com/article/8831046>

[Daneshyari.com](https://daneshyari.com)