Original Study

Treatment, Outcomes, and Clinical Trial Participation in Elderly Patients With Metastatic Pancreas Adenocarcinoma

Daneng Li,[1] Marinela Capanu,[2] Kenneth H. Yu,[1,3] Maeve A. Lowery,[1,3] David P. Kelsen,[1,3] Eileen M. O'Reilly[1,3]

Abstract

Studies on the treatment patterns and outcomes of elderly patients with metastatic pancreas cancer remain limited. Therefore, an analysis of systemic therapy use, clinical trial participation, and outcomes in elderly patients with metastatic pancreas cancer was performed at our institution. Elderly patients who received systemic therapy had a longer survival compared with those who did not. However, therapeutic clinical trial participation was low and should be encouraged.

Background: Pancreas adenocarcinoma has a median age at diagnosis of 71 years. Limited studies have focused on the treatment of elderly patients with pancreas cancer. **Patients and Methods:** An analysis of systemic therapy use, clinical trial participation, and overall outcomes of 237 patients with metastatic pancreas adenocarcinoma $\geq$ 75 years of age evaluated at Memorial Sloan-Kettering Cancer Center between 2005 and 2013 was undertaken. **Results:** Median overall survival was 7 months for the entire study population. A total of 197 (83%) patients received systemic therapy, which was significantly associated with longer overall survival ($P < .01$). No significant difference was detected in survival between age groups 75 to 79, 80 to 84, and $\geq$ 85 years of age among those who received systemic therapy ($P = .49$). Seventy-seven (32%) patients participated in a clinical trial of whom 13 (5%) patients were enrolled in a therapeutic trial, including no patients aged $\geq$ 85 years. Multivariate analysis demonstrated that presence of liver metastases ($P < .001$), performance status ($P < .001$), and number of systemic agents ($P < .001$) were significantly associated with survival. **Conclusion:** Receipt of systemic therapy was associated with longer survival in elderly patients $\geq$ 75 years of age with metastatic pancreas adenocarcinoma. Therapeutic clinical trial participation among these patients was low and future development of prognostic models for appropriate patient selection is warranted.

Clinical Colorectal Cancer, Vol. ■, No. ■, 1-8 © 2015 Elsevier Inc. All rights reserved.
Keywords: Cancer, Chemotherapy, Elderly, Palliative, Survival

Introduction

With a growing elderly population in the United States, an estimated 70% of all cancer diagnoses will occur in patients older than the age of 65 by the year 2030.[1] Pancreatic cancer is a disease that mainly affects the elderly population with a median age of 71 years at diagnosis.[2] The incidence of pancreatic cancer has increased in recent years and 53% of patients are initially diagnosed with metastatic disease.[3] As a result, prognosis remains poor and pancreatic cancer is now projected to become the second leading cause of cancer-related mortality in the United States by the year 2030.[4]

Previous studies that specifically focused on elderly metastatic pancreatic cancer patients have been limited. Furthermore, elderly patients remain poorly represented in clinical trials[5] and are often not recommended for standard therapy.[6,7] Hutchins et al demonstrated that patients 65 years or older were significantly underrepresented in the Southwest Oncology Group treatment trials, which included trials specifically for pancreas cancer.[5] In another study, 11% of physicians explicitly reported that age was a reason for not

[1]Department of Medicine, Memorial Sloan Kettering Cancer Center, New York, NY
[2]Department of Epidemiology and Biostatistics, Memorial Sloan-Kettering Cancer Center, New York, NY
[3]Weill Cornell Medical College, New York, NY

Submitted: Jan 12, 2015; Revised: Mar 29, 2015; Accepted: May 15, 2015

Address for correspondence: Eileen M. O'Reilly, MD, Department of Medicine, Gastrointestinal Medical Oncology Service, Memorial Sloan-Kettering Cancer Center, 300 East 66th Street, New York, NY 10065
Fax: 646-888-4542; e-mail contact: oreillye@mskcc.org

1533-0028/$ - see frontmatter © 2015 Elsevier Inc. All rights reserved.
http://dx.doi.org/10.1016/j.clcc.2015.05.005

enrolling elderly patients in clinical trials.[8] In terms of standard therapy, Oberstein et al investigated the Surveillance, Epidemiology, and End Results-Medicare database for patients with metastatic pancreas adenocarcinoma diagnosed between 1998 and 2005 and demonstrated that the likelihood of receipt of palliative gemcitabine decreased with advancing age.[7] Additionally, Vijayvergia et al also reported differences in patterns of care and outcomes of elderly versus younger patients with metastatic pancreatic cancer. Specifically, the authors showed at their institution that older patients (> 65 years of age) despite having similar performance status and disease characteristics were less likely to receive any chemotherapy and if treated were less likely to receive more than 1 chemotherapy agent.[9]

The safety and efficacy of gemcitabine-based chemotherapy in elderly patients aged ≥ 70 years with advanced pancreatic cancer was shown to be similar to that of younger patients based on a limited number of retrospective studies.[10-12] 5-fluorouracil, leucovorin, irinotecan, oxaliplatin (FOLFIRINOX)[13] and gemcitabine/*nab*-paclitaxel[14] are newly established combination cytotoxic regimens routinely used in the treatment of metastatic pancreas cancer in addition to single-agent gemcitabine. However, there are many pertinent questions regarding the use of gemcitabine-based therapy and these newer cytotoxic regimens in elderly patients ≥ 75 years of age, an age group that has not been widely studied in pancreas cancer despite that > 40% of patients diagnosed with this disease fall into this age group.[2] Furthermore, data on this particular age group with regard to clinical trial participation are sparse and notably, the phase III study that evaluated FOLFIRINOX had an upper limit of age enrollment of 76 years,[13] although the phase III trial that evaluated *nab*-paclitaxel and gemcitabine did include patients older than 75 years of age, which accounted for 10% of the trial enrollment.[14]

Based on the limited data available on the use of various systemic therapies and clinical trial participation among elderly patients with stage IV pancreas adenocarcinoma, we hypothesized that the frequency of systemic therapy use and clinical trial participation would be low among patients aged ≥ 75 years who underwent treatment for stage IV pancreas adenocarcinoma. Therefore, the primary objective of the current study was to assess the frequency of systemic therapy use, clinical trial participation, and overall survival (OS) in patients ≥ 75 years of age with metastatic pancreas adenocarcinoma who received care at Memorial Sloan Kettering Cancer Center (MSKCC). Additional objectives included characterization of treatment and disease-related morbidity, and modeling to investigate predictors of survival.

Patients and Methods

Patient Selection

After obtaining institutional review board approval for the study, the MSKCC institutional database, comprised of all patients seen at MSKCC, was searched to identify patients aged ≥ 75 years diagnosed with stage IV pancreas adenocarcinoma between January 2005 and December 2013. Inclusion criteria were (1) patients ≥ 75 years of age at diagnosis; (2) diagnosis of stage IV pancreas adenocarcinoma; and (3) patients must have received consultation or evaluation for stage IV pancreas adenocarcinoma at MSKCC. Patients specifically with nonadenocarcinoma histology and stage III disease, were excluded. The cutoff age of 75 was specifically used for this study because of the persistent underrepresentation of this age group among cancer trials.[15] As a result, research on cancer therapeutic use among those aged ≥ 75 years has been recommended as a top priority in geriatric oncology among collaborators from the Cancer and Aging Research Group, the National Institute of Aging, and the National Cancer Institute.[16] A retrospective chart review was undertaken to abstract data.

Selection of Variables

The following variables were extracted in the chart review: age (divided into groups aged 75-79, 80-84, and ≥ 85 years), sex, other comorbid medical conditions, Eastern Cooperative Oncology Group (ECOG) performance status, primary tumor site, location of metastatic sites, number of medications, laboratory tests (consisting of albumin and carcinoma antigen [CA] 19-9), chemotherapy use (including number of agents given during first-line systemic therapy), and clinical trial participation.

Age was specifically divided into groups 75 to 79, 80 to 84, and ≥ 85 years because previous studies at MSKCC in breast cancer have shown differences in treatment patterns when age groups 75 to 79 versus ≥ 80 years were compared.[17] Furthermore, a previous study in pancreas cancer divided age groups into 65 to 69, 70 to 74, 75 to 79, 80 to 84 and ≥ 85 years and demonstrated the magnitude of decreased likelihood to receive gemcitabine treatment increased with each advancing age group.[7]

The age-adjusted Charlson Comorbidity Index (ACCI) was used to assess the effect of age combined with comorbid medical conditions.[18,19] ACCI scores were calculated using the method previously reported and initially developed by Charlson in 1987, which has since been updated and validated in numerous studies including in older patients with cancer.[18-20]

Other variables selected for investigation in this study were based on previous potential prognostic variables in pancreas cancer identified from previous studies.[14,21-23]

Statistical Analysis

The primary outcome of the study was median OS. Survival curves were estimated using the Kaplan−Meier method and compared using the log-rank test. Associations between different risk factors and OS were assessed using univariate Cox regression models. A multivariable Cox regression model was built based on risk factors found to be significant at the .05 level in the univariate Cox regression models.

Results

A total of 247 patients aged ≥ 75 years with a listed diagnosis of stage IV pancreas adenocarcinoma were identified in the MSKCC database between January 2005 and December 2013. Of these, 237 patients were eligible for inclusion. Most of those who were ineligible for analysis had an initial diagnosis of stage III pancreas cancer and were identified to have developed metastatic disease only after receiving previous systemic therapy (ie, not de novo stage IV disease).

Patient characteristics are detailed in Table 1. Age was divided into 3 age groups with 114 (48%) patients between the ages of 75 and 79, 84 (35%) patients between the ages of 80 and 84, and 39

Download English Version:

https://daneshyari.com/en/article/5882259

Download Persian Version:

https://daneshyari.com/article/5882259

Daneshyari.com