

Elderly Stage III Colon Cancer Patients in the Netherlands: Treatment and Side Effects

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Abstract

Background: In elderly colon cancer patients, we investigated which patient factors were associated with treatment tolerance and outcome.

Design: Population based information from five districts remembered for the Netherlands Malignant Growth Library were utilized. Patients with resected stage III colon disease aged ≥ 75 years analyzed in 1997-2004 who got adjuvant chemotherapy (N = 216) were incorporated as well as an irregular example (N = 341) of patients who just went through a medical procedure.

Results: Refusal by the patient or family or a combination of high age, co-morbidity, and poor performance status (PS, 43%) were the most common reasons for withholding adjuvant chemotherapy. Treatment regimens were modified in 57% of patients receiving chemotherapy. 52 percent of patients who had surgery alone experienced fewer complications than those who had adjuvant chemotherapy. Even after taking into account differences in age, co-morbidity, and PS, the selection of patients who had survived the first year following surgery showed that those who received adjuvant chemotherapy had a better 5-year overall survival (52 percent versus 34 percent).

Conclusion: Older patients who received chemotherapy appeared to have a longer survival time despite the high rates of toxicity and treatment regimen modifications. In order to determine which patient characteristics are predictive of the risks and benefits of adjuvant chemotherapy in elderly colon cancer patients, prospective studies are required.

Keywords: Adjuvant chemotherapy; Colon cancer; Elderly; Recurrence; Survival; Toxicity

Introduction

With nearly 8000 new cases and nearly 3900 deaths in 2010, colon cancer is the third most common cancer in men and the second most common in women in the Netherlands (source: Measurements Netherlands), of whom the greater part were aged >75 years (source: Statistics Norway).

Patients with lymph node-positive colon cancer have seen an improvement in survival rates since the middle of the 1980s, particularly as a result of advancements in adjuvant treatment [1, 2]. The use of 5-fluorouracil (5-FU)-based chemotherapy as an adjuvant treatment for younger patients with stage III colon cancer has been shown to be beneficial and, more recently, in conjunction with oxaliplatin. An equivalent advantage was accounted for those old patients with stage III colon malignant growth with 5-FU-based chemotherapy. The benefits of chemotherapy with oxaliplatin for elderly patients were less clear, and higher levels of toxicity were reported [3].

As indicated by the proof based public Dutch clinical practice rules, adjuvant chemotherapy is these days suggested for stage III colon disease. Capecitabine monotherapy or oral uracil and tegafur plus leucovorin monotherapy can be chosen in place of combination chemotherapy in cases of high age and/or co-morbidity [4]. According to a recent national study conducted in the Netherlands, the proportion of patients with colon cancer who received adjuvant chemotherapy increased from 19% in 1989–1993 to almost 80% in 2004–2006. However, a much smaller percentage of patients under the age of 75 received adjuvant chemotherapy: just 23% from 2007 to 2009 [5].

Many elderly patients with stage III colon cancer do not receive adjuvant chemotherapy, according to population-based studies. Frailty, poor functional status, or the presence of co-morbidities that may increase toxicity are likely reasons why elderly patients receive less

adjuvant chemotherapy. Withholding adjuvant chemotherapy is also justified by higher rates of postoperative mortality and morbidity [6]. Additionally, elderly patients appear less willing to accept potential side effects of adjuvant treatment than younger patients and are concerned about the impact of adjuvant chemotherapy on quality of life.

In this study, we looked at which patient factors were related to treatment tolerance, outcome, and receiving adjuvant chemotherapy in elderly stage III colon cancer patients [7].

Methods

Data collection

A population of approximately nine million people was covered by population-based data from five regional Dutch cancer registries. Patients who have recently been diagnosed with cancer are included in these registries, which are representative of the national population and keep records of all hospitals in their region [8]. The date of diagnosis, subsite (International Classification of Diseases for Oncology (ICD-O-3) (Fritz), histology, stage (Tumour Lymph Node Metastasis (TNM) classification) (UICC), grade, and primary treatment are just a few of the characteristics that trained registrars routinely extract directly from the patient's medical records. Patients under the age of 75 with resected

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primary colon cancer stage III (C18.0-C18.9) diagnosed between 1997 and 2004 were included in this study. Excluded were autopsies with diagnoses [9]. For each territorial malignant growth vault, all patients matured ≥ 75 years who went through resection for colon disease and got adjuvant chemotherapy were incorporated (absolute $N = 369$). A random sample of the same number of patients who did not receive adjuvant chemotherapy was chosen ($N = 375$) because the majority of patients younger than 75 years old did not receive the treatment (85- 90 percent). Unfortunately, some of the medical records could not be retrieved or were incomplete, so only 341 patients underwent surgery and 216 patients received adjuvant chemotherapy [10]. There were three age categories: 75-79, 80- 84, and 85. The pathological TNM classification served as the basis for stage. Every patient's vital status was actively and frequently retrieved from the municipal registries' automated database.

Statistical analyses

Patient qualities were depicted by the treatment bunch. The distinctions between subgroups were tried utilizing chi-square tests. Adaptations to treatment and reasons for suboptimal treatment were discussed. The treatment group's toxicity and recurrence rates were described [11].

Results

Treatment and completion

The middle age of the review populace was 78 years in the adjuvant chemotherapy bunch and 82 years in the gathering who didn't get adjuvant chemotherapy. At the time of diagnosis, co-morbidity afflicted three quarters of all patients. Cardiovascular disease accounted for 67% of co-morbidities, followed by diabetes mellitus (16%) and pulmonary disease (10%). In the adjuvant treatment group, 94% of those with known PS had good PS, whereas in the group without adjuvant treatment, 70% had good PS. Be that as it may, the PS was frequently missing (27% in the adjuvant chemotherapy bunch versus 35% in the gathering not getting adjuvant chemotherapy)

Nine percent of old patients with stage III colon malignant growth went through crisis medical procedure. These patients experienced greater treatment-related intricacies contrasted and the patients who went through elective medical procedure (59% versus 38%) and 51 patients (9%) went through re-activity.

The greater part of patients getting chemotherapy gotten 5-FU/ leucovorin (87%); Only 1% of patients received combination chemotherapy containing capecitabine and oxaliplatin, while only 4% received capecitabine monotherapy.

Toxicity

More than half (52%) of the patients who got adjuvant chemotherapy fostered any harmfulness during treatment versus 41% of patients who didn't get adjuvant chemotherapy. There was more gastrointestinal toxicity in the adjuvant chemotherapy group (13 percent versus 1%); Only 3% of patients experienced hemotoxic effects. Seven percent of patients who did not receive adjuvant chemotherapy died as a result of (postoperative) complications, mostly in the first year after surgery; by contrast, almost none of those who did receive adjuvant chemotherapy died as a result of these complications. In addition, the number of wound infections among patients who did not receive adjuvant chemotherapy was higher (8 percent versus 4 percent in the adjuvant chemotherapy group). Age and co-morbidity had no effect on toxicity in patients who

received adjuvant chemotherapy [12].

Treatment outcome

211 (41%) of the 517 patients with stage III colon cancer who had survived at least 30 days after surgery developed disease recurrence without receiving chemotherapy. Between 4 and 2629 days, the median time to recurrence was 420 days; the treatment groups did not differ significantly from one another.

Patients who received adjuvant chemotherapy had significantly better five-year survival rates than those who did not (52 percent versus 34 percent, $P = 0.0001$; 1 in Figure After adjusting for age, co-morbidity, and PS differences, this effect remained significant [hazard ratio, $HR = 0.73$; 95 percent confidence interval (CI) = 0.55–0.98]. High age (>80 years) and severe co-morbidity were two additional independent negative prognostic factors in the multivariate survival analysis.

For patients not receiving adjuvant chemotherapy, mortality in the first year after surgery was relatively high (12%, 16% and 33% after 30 days, 90 days and 1 year, respectively). For that receiving adjuvant chemotherapy, these rates were 0%, 0.1% and 6%, respectively [13].

Discussion

A combination of high age, co-morbidity, poor PS, and patient or family refusal were the most common reasons for withholding adjuvant chemotherapy, according to the findings of this study. Albeit just moderately fit patients were chosen for adjuvant chemotherapy, over portion of the patients getting chemotherapy couldn't finish the full treatment, and more gastrointestinal difficulties happened [14]. Even after taking into account differences in age, co-morbidity, and PS, as well as excluding patients who had passed away within a year of diagnosis, adjuvant chemotherapy improved overall 5-year survival.

Several other population-based studies have demonstrated, as our findings demonstrate, that adjuvant chemotherapy has a distinct effect on prognosis in elderly colon cancer patients [15]. A meta-analysis of randomized trials found that adjuvant chemotherapy and surgery alone had smaller differences in survival, and overall survival was higher in both groups than in ours (the 5-year overall survival was 71% for those who received adjuvant therapy, compared to 64% for those who were not treated). The distinction in by and large endurance is presumably brought about by the consideration of just somewhat fit older patients in clinical preliminaries and the incorporation of patients with stage II colon disease in this meta-examination [16].

Conclusion

All in all, albeit over portion of all older patients with stage III colon malignant growth who were chosen for adjuvant chemotherapy couldn't finish the full treatment, the people who got adjuvant chemotherapy appeared to have a superior endurance, even after change for contrasts in age, co-horribleness and PS. Planned investigations are required for assessing the prescient worth of patient qualities for dangers and advantages of treatment. This allows for a treatment choice that is more balanced.

Acknowledgement

None

Conflict of Interest

None

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