Gynecologic Oncology 119 (2010) 18–21

Contents lists available at ScienceDirect

Gynecologic Oncology

journal homepage: www.elsevier.com/locate/ygyno

The role of neoadjuvant chemotherapy in the management of patients with advanced stage ovarian cancer: Survey results from members of the Society of Gynecologic Oncologists ☆

Summer B. Dewdney *, B.J. Rimel, Andrew J. Reinhart, Nora T. Kizer, Rebecca A. Brooks, L. Stewart Massad, Israel Zighelboim

Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, Washington University School of Medicine and Siteman Cancer Center, 4911 Barnes Jewish Hospital Plaza, Box 8064, St Louis, MO 63110, USA

ARTICLE INFO

Article history:
Received 30 April 2010
Available online 31 July 2010

Keywords:
Survey
Society of Gynecologic Oncologists
Neoadjuvant chemotherapy
Ovarian cancer

ABSTRACT

Objective. Recent randomized controlled data suggest that neoadjuvant chemotherapy (NACT) with interval debulking (ID) may produce similar overall survival and progression free survival compared to standard primary cytoreduction followed by chemotherapy. The object of our study was to assess current patterns of care among members of the Society of Gynecologic Oncologists (SGO), specifically collating their opinions on and use of NACT for advanced stage ovarian cancer.

Methods. A 20-item questionnaire was sent to all working e-mail addresses of SGO members (n = 1137). The data was collected and analyzed using descriptive statistics with commercially available online survey software. The Chi-square test for independence was used to determine differences in responses between groups.

Results. Of 339 (30%) responding members, most rarely employ NACT, with 60% of respondents using NACT in less than 10% of advanced stage ovarian cancer cases. Respondents did not consider available evidence sufficient to justify NACT followed by ID (82%), nor did most think it should be preferred (74%). Sixty-two percent of respondents thought it was impossible to accurately predict preoperatively whether an optimal cytoreduction is possible. Thirty-nine percent believed that women with bulky upper abdominal disease on preoperative imaging would benefit from NACT versus primary debulking. If gross disease were found at ID, 43% would continue to treat with IV chemotherapy, and 42% would place an IP port if optimally cytoreduced. When ID reveals microscopic disease, 51% would continue IV treatment and the remaining IP therapy. Eighty-six percent of the respondents believed that both biological and surgical factors determine patient outcomes.

Conclusions. The majority of responding SGO members do not treat patients with NACT followed by ID. Currently available studies of NACT/ID have been insufficient to convince most gynecologic oncologists to incorporate it into practice. Our results provide a benchmark against which further research can assess the penetration of NACT/ID into clinical practice.

Introduction

The majority of women with ovarian cancer are diagnosed with advanced stage disease; approximately 70% have stage III or IV [1]. Standard initial management involves surgical staging and maximal cytoreduction followed by platinum and taxane combination chemotherapy. Multiple retrospective, nonrandomized studies have demonstrated that primary optimal cytoreduction predicts prognosis. Specifically, the amount of residual disease at the end of a cytoreductive surgery is directly correlated with survival [2–5]. However, the rates of optimal cytoreduction vary among institutions, depending on the availability of a gynecologic oncologist, and even among "experts" at academic institutions, from 29% to 82% [3]. Few studies of aggressive primary debulking surgery included the oldest geriatric patients. Primary debulking surgery can be radical, with small surgical mortality and with morbidity that sometimes precludes chemotherapy. To minimize these problems, neoadjuvant chemotherapy followed by interval debulking has been proposed as an alternative to the current standard of primary cytoreductive surgery.

Vergote et al. [14] presented a study at a meeting of the International Gynecologic Cancer Society (IGCS) in October 2008 and again to the Society of Gynecologic Oncologists (SGO) in 2009.

☆ This work was presented at the 41st Annual Meeting of the Society of Gynecologic Oncologists (San Francisco, CA; March 14–17, 2010).

* Corresponding author.
E-mail address: dewdneys@wustl.edu (S.B. Dewdney).

0090-8258/$ – see front matter © 2010 Elsevier Inc. All rights reserved.
doi:10.1016/j.ygyno.2010.06.021

This was notably the first randomized controlled trial comparing primary cytoreductive surgery with neoadjuvant chemotherapy in patients with ovarian, fallopian tube, and primary peritoneal cancer. Their study randomized 718 patients over a period of eight years. They found that NACT followed by debulking surgery produces similar overall survival and progression free survival and lower operative morbidity compared to standard primary debulking. The authors concluded NACT can be considered as the preferred treatment in this patient population. This study is yet to be published and wide adoption of neoadjuvant chemotherapy as a therapeutic modality for patients with advanced disease will likely be influenced by physician preferences, geographic location and practice type.

Thus, controversy may exist regarding the optimal treatment for advanced stage ovarian, fallopian tube, and primary peritoneal carcinoma. Given new randomized controlled trial data and a possible change in the initial management of advanced ovarian cancers, we surveyed the members of the Society of Gynecologic Oncologists (SGO) to assess current patterns of care regarding neoadjuvant chemotherapy for the management of advanced stage ovarian, fallopian tube, and primary peritoneal carcinoma.

Methods

This study was approved by the Washington University Human Research Protection Office (HRPO 09-0671) and was completed through the administration of a non-validated electronic survey. The questionnaire assessed demographics, practice characteristics, and current opinions and initial approaches to management for patients with advanced stage ovarian, fallopian tube, or primary peritoneal carcinoma and to evaluate indications for neoadjuvant chemotherapy (Table S1, available online). The membership list was obtained directly from SGO through completion of their online E-survey application form after approval by the SGO executive director. The 20-item electronic surveys were distributed and results were collected using a commercially available online survey program (http://www.surveymonkey.com) to all working e-mail addresses of SGO members (n = 1137). An opt-out option was provided in the request e-mail.

The first survey request with an invitation e-mail and link to the survey was sent out August 2009, with a second invitation sent to non responders two weeks later and a third and final invitation sent four weeks later. Demographics of the surveyed cohort were summarized with descriptive statistics. Statistical analysis was performed using frequency distributions and the Chi-square test to detect differences in responses between groups. All percentages were calculated on the basis of number of responses. Responders could choose not to respond to every question, as such each question may have not been answered by every participant.

Results

Demographics

A total of 339 responses were obtained from 1137 working e-mail address, giving a response rate of 30%. Thirty-eight recipients opted out and 13 e-mails were returned unread which were not included in the analysis. Most of the respondents were male (66%) and with greater than 15 years of experience (40%), (Table 1). The majority of respondents were gynecologic oncologist with only 2% of participants identifying themselves as medical oncologists. Sixty percent of respondents identified their practice setting as “academic”, 26% as “private with academic affiliation”, 13% as “private”, and 2% as “military”. Ninety-five percent of the respondents practice in the USA with 2.4% from Canada and 1.2% from Europe. The majority (83%) stated that they manage ovarian cancer as both a surgeon and administering chemotherapy, with 16% stating their role was limited to the surgical aspect of disease management. Forty-seven percent stated that they see 5–15 cases of ovarian per month and 45% stated less than 5 cases per month.

Table 1
Demographics of respondents.

	N	%
1. Years of practice since fellowship[a]		
Fellow in-training	26	7.7
<5 years	77	22.8
5–10 years	56	16.6
11–15 years	44	13.1
>15 years	134	39.8
2. Specialty[a]		
Gynecologic oncology	331	98.2
Medical oncology	6	1.8
Radiation oncology	0	0
3. Current practice type[b]		
Academic	196	59.2
Private with academic affiliation	86	26.0
Private	43	13.0
Military	6	1.8
4. Location[c]		
USA	318	94.6
Canada	4	1.2
Europe	8	2.4
Other	6	1.8
4. Gender		
Male	224	66.7
Female	113	33.3

[a] 2 non-respondents.
[b] 8 non-respondents.
[c] 3non-respondents.

Self-reported rates

The majority of overall respondents stated rate of optimal primary cytoreduction was greater than 60%, with 42% of respondents stating their rate was between 61 and 80% and 39% stating it was greater than 80%. Only 14% identified their rate lower than 60%. There was no difference in optimal debulking rates between men and women nor type of practice. However there was a significant difference in response when asked about a rate of optimal cytoreduction between years of experience favoring those gynecologic oncologists who finished fellowship <10 years ago ($p = 0.001$). Sixty percent of respondents use NACT less than 10% of the time for stage IIIC/IV ovarian, fallopian tube, or primary peritoneal carcinoma. Only 4% of respondents used NACT greater than 40% of the time. Differences between years of experience and practice type can be seen in Table 2.

Diagnosis

The majority of respondents (62%) thought it was not possible to accurately predict preoperatively whether a patient might be optimally cytoreduced. Nevertheless, when asked which modality is the most helpful to predict successful optimal cytoreduction, 63% identified CT scan, while only 18% identified CA125. Thirty-nine percent believed that women with bulky upper abdominal disease on preoperative imaging would benefit from NACT versus primary debulking. Whereas only 3% thought that extreme values of CA125 can identify women who would benefit from NACT. Overwhelmingly, 88% thought that the patients who would benefit most from NACT were the medically inoperable candidates, with 54% identifying patients with unresectable intraparenchymal liver disease as receiving a benefit from NACT.