Editorial

Measuring Ovarian Cancer Care: Why Are We Still Failing?

The true measure of a society can be found in how it treats its weakest members.
– M. Gandhi

Arguably, ovarian cancer patients are some of the most vulnerable individuals that we treat. So how does our performance in treating these patients measure up? In this issue of Gynecologic Oncology, Cliby and colleagues review the contemporary patterns of care in the United States from 1998 to 2007 [1]. Overall, we don’t do a very good job, as their study exposes the lack of adherence to guideline therapy for the majority of ovarian cancer patients treated in this country.

Over the past several decades we have seen both declining incidence and age adjusted cancer death rates for ovarian cancer [2]. But the progress for ovarian cancer is far less than for breast, colorectal or prostate cancers. Table 1 shows recent statistics for cancer incidence and cancer death rates per 100,000 population. While ovarian cancer death rates have declined by 14%, a declining death rate in a population can reflect decreased incidence as well as improvements in prevention, early detection and treatment. Ovarian cancer is the only of the four cancers listed in which the incidence declined more than death rate, suggesting that better medical care is at most a modest factor in lower death rates. Table 2 shows the trend in five-year survival rates, which can better reflect improvements in early detection and more effective treatment. The overall five-year survival rates for ovarian cancer have improved from 36% to 44%. However, within the data there is evidence of unequal progress: for African-American women there has actually been a worsening of five-year survival, from 42% to 36% over the same time period [2].

Some of the reasons for the slower progress with ovarian cancer as compared to other malignancies include the lack of effective screening, symptoms that are vague and often not recognized by patients and practitioners, advanced stage at diagnosis and increasing prevalence in an elderly population with frequent co-morbidities. However, over the past 25 years there have been significant advances in the treatment of ovarian cancer, which if uniformly applied could result in substantially better outcomes. For example, we know the importance of cytoreduction to no gross residual disease, and that when optimal debulking can be achieved there is significant improvement in overall survival (OS), typically to well over five years [3]. We have also seen that intraperitoneal chemotherapy [4] and dose dense chemotherapy [5] significantly improve OS, with studies reporting median OS of over 8 years when these therapies are given to women who have achieved optimal cytoreduction. Finally, we now understand the importance of risk reducing surgery as a prevention strategy for women who carry deleterious mutations that put them at elevated risk of developing high grade serous cancers of pelvic origin.

These advances in ovarian cancer treatment occurred thanks to scientific research and clinical trials, and many of the most important studies over the last 25 years have been published in this journal. Unfortunately, there remains a fundamental problem with how ovarian cancer patients in this country are treated. Cliby et al. [1] now report the third study evaluating a large population based data set – showing, again, that less than 50% of women in the US receive guideline therapy. The first study to raise concerns about inadequate treatment evaluated 8211 women with Stage III/IV ovarian cancer using information extracted from the SEER-Medicare database for the years between 1995 and 2005 [6]. In this study, Thrall et al., found 59% of patients had primary debulking surgery (and only 76% of these patients received chemotherapy), 25% were treated with primary chemotherapy (and only 32% of these patients had surgery), and 17% received no treatment. When investigators evaluated the performance of surgery plus six cycles of chemotherapy, in any order, only 35% of this population received this most basic standard of care. In multivariate analysis, advanced age, African American race, Stage IV disease, non-married status, and increasing medical co-morbidities were associated with failure to receive standard care.

The second study to show that the majority of ovarian cancer patients fail to receive guideline therapy evaluated epithelial ovarian cancer patients treated from 1999 to 2006, as identified from the California Cancer Registry [7]. In this study, Bristow et al., identified 13,321 women; overall only 37% received National Comprehensive Cancer Network (NCCN) guideline adherent care. Appropriate surgery and chemotherapy were administered in 54% and 61% of patients respectively. Non-adherence to NCCN guideline care was associated with a significant 33% reduction in survival (HR 1.33, 95% CI 1.26-1.41).

In the study by Cliby et al., reported in this issue of Gynecologic Oncology [1], 96,802 women treated from 1998 to 2007 were evaluated from the National Cancer Database. This database captures approximately 80% of cancer cases reported in the US. The authors were able to limit their evaluation to invasive epithelial cancer. Overall, only 43% of patients received NCCN guideline therapy. Age, race, medical co-morbidity, facility type and facility case volume were predictors of adherence. Non-adherence to guideline therapy was independently associated with a worse survival (HR 1.48, 95% CI 1.36-1.44). Higher facility case volume was an independent predictor of improved OS (HR 0.91, 95% CI 0.86-0.96). While adherence to guideline therapy was higher in academic comprehensive cancer programs (49%) than community cancer centers (30%), it is still surprisingly low. Thus opportunities for improvement exist in all practice settings and in all regions of our country.

Given the disappointing consistency of these three studies, how can we do better? Improving adherence to evidence-based treatment that improve survival for women with ovarian cancer seems a logical place to start. Registries which track both process and outcome measures have been successful in improving quality of care. The National Surgical
Quality Improvement Program (NSQIP) was able to dramatically reduce 30-day mortality and postoperative complications in Veteran Administration Hospitals through regular monitoring, reporting and comparing of outcome variables between hospitals. The Society of Gynecologic Oncology has developed five quality measures for ovarian cancer and is piloting a registry to report and compare outcomes among participants. Quality measures and comparison of outcomes need to be done not only by gynecologic oncologists but also for all providers treating ovarian cancer. Low-volume providers in low-volume settings do treat a large percentage of ovarian cancer patients, so quality measures must be applied to these patients who are at the highest risk for non-adherence to guideline care. Finally, the complexities of ovarian cancer therapy may favor centralization of care as has been done in Norway and the Netherlands. A recent Cochrane review supports a survival advantage for women receiving treatment in specialized centers or in centers with specialty care [8]. Centralization of ovarian cancer care in the United States would, however, require major changes in health care policy and reimbursement rules by payers.

We must understand why as a medical community we fail to deliver guideline therapy to the majority of ovarian cancer patients. We have proven our ability design moon shots, assemble dream teams and spend hundreds of thousands of dollars on novel treatments. After all that effort, progression free survival is usually improved by only a few months, and for a limited number of patients. The paper by Cliby et al., together with the similar reports by Thrall et al., and Bristow et al., should finally force us to ask very hard questions. What are the fundamental reasons so many women in the US don’t get the basic care that is associated with the best survival? Why do physicians, perhaps in concert with hospitals, insurance companies, family members, and even the patients, so frequently choose substandard therapy? We must answer these questions and then implement fundamental changes in our management of women with ovarian cancer. Otherwise we will continue to fail in our obligation to this vulnerable population.

References


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7 April 2014