Would Oncologists Want Chemotherapy If They Had Non-Small-Cell Lung Cancer?

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In 1985, a survey found that only about one-third of physicians and oncology nurses would have consented to chemotherapy for non-small-cell lung cancer. In response to statements made at a recent American Society of Oncology (ASCO) Board of Directors meeting questioning whether these data are still valid, Dr. Smith and colleagues conducted a new survey of oncologists attending a 1997 National Comprehensive Cancer Network (NCCN) annual meeting. The results of that survey are summarized and analyzed.

Treatment recommendations for non-small-cell lung cancer[1-3] have changed markedly over the past 20 years, based on evidence that chemotherapy improves survival [4-8] and can palliate symptoms.[9] The use of combined-modality chemotherapy and radiation therapy, with or without surgery, has also substantially improved the 1-, 2-, and 5-year survival of patients with locally advanced disease,[4,5] although at the expense of modestly increased toxicity.[10,11] There are indications, however, that not all oncologists are keeping up with these improvements, and that knowledge does not always guide practice.[12]

At a recent American Society of Clinical Oncology (ASCO) Board of Directors meeting convened to review the ASCO guidelines for the treatment of non-small-cell lung cancer, objections were raised about the inclusion of prior data indicating that oncologists themselves would not take chemotherapy for non-small-cell lung cancer even though they were willing to give it to their patients. In 1985, MacKillop and colleagues found that of 118 Canadian doctors who treat lung cancer, only 16% would want chemotherapy for symptomatic metastatic bone disease.[13] Lind and colleagues surveyed teaching oncologists in Boston in 1987 and found that 27% would probably or definitely take chemotherapy for stage III non-small-cell lung cancer, but 76% would take radiation therapy.[14]

At the ASCO Board of Directors meeting, the proposal was made that current chemotherapy is so much less toxic and the outcomes are so much better that oncologists would now uniformly take chemotherapy if they were facing the disease. Dr. Smith and colleagues surveyed a convenience sample of oncologists attending the 1997 National Comprehensive Center Network (NCCN) annual conference to see whether attitudes toward receiving chemotherapy had, indeed, changed.

Materials and Methods

Literature spanning the period 1980 to 1997 was reviewed, as was evidence contained in the ASCO non-small-cell lung cancer guidelines.[1] A convenience sample was drawn from attendees at a session on NCCN clinical practice guidelines held in March 1997. Participants were asked to respond to the following scenario: "You are a 60-year-old oncologist with non-small-cell lung cancer, one liver metastasis, and bone metastases. Your performance status is 1. Would you take chemotherapy? Yes or no?"[6] Age and professional status, such as medical oncologist/hematologist, nurse, and other, were also factored into the analysis. Results were analyzed using Microsoft Access.

Results

Of approximately 300 people in attendance, 126 (42%) responded to the survey. The mean age was 46 years. The majority of respondents (51%) were oncologists and hematologists. As this was a convenience sample, the representativeness of these oncologists cannot be determined, but all were in academic or community practice and presumably interested in clinical practice guidelines for oncology.
Results are shown in Table 1. Among oncologists/hematologists, 64.5% said that they would take chemotherapy, as did 67% of nurses. The two nonmedical administrators both voted no. In the “other” category, which included a mix of radiation oncologists and other types of physicians, 33% said that they would take chemotherapy.

**Discussion**

Given this clinical scenario of well-defined amounts of symptomatic disease and good performance status, the ASCO guidelines[1] and Ontario guidelines[2] would recommend that chemotherapy can improve survival and should at least be considered. The results of the present survey suggest that there has been an increase in those willing to take chemotherapy.

In the MacKillop et al study,[13] only 17% of medical oncologists said that they would take chemotherapy for painful bone metastases and another 17% said that they would undergo radiotherapy to the spine, in addition to chemotherapy, for a total of 34%. Our results show that 64.5% would now take chemotherapy—not indicating nearly a doubling from 34% to 64.5% of those now willing to have chemotherapy plus radiotherapy and a quadrupling from 17% to 64.5% of those who would take chemotherapy alone. The Lind et al study did not include a comparable case.[14]

**Conclusions**

Three conclusions can be drawn from these data with reasonable certainty. First, the number of medical oncologists who would choose chemotherapy has at least doubled and may have quadrupled. This suggests that these informed consumers have recognized the enhanced clinical benefit and reduced clinical toxicity of chemotherapy today and are making choices consistent with national clinical practice guidelines.

The current finding runs counter to data accumulated from 1985 to 1990 at the Massey Cancer Center, indicating that only a small minority (19% of Virginia non-small-cell lung cancer patients) were actually receiving chemotherapy.[unpublished data, B. E. Hillner et al, 1998] Therefore, an analysis of current practice patterns, before and after the release of the ASCO guidelines, would be helpful to see whether the benefit of chemotherapy is being accepted in the community.

Second, even with modern chemotherapy that is modestly more effective and supportive care that is clearly more effective, about one-third of medical oncologists and oncology nurses would still not take chemotherapy. Their willingness to forego the small but palpable survival benefit indicates that these informed consumers balance the trade-off between survival and toxicity in a way that indicates that the choice is not clear-cut. What this may suggest is that a full discussion of the benefits and toxicities associated with chemotherapy is still critically important for patients.

Data further indicate that patients facing certain death are willing to accept substantial toxicity for even a slight chance of improved survival[15] far more than their well physicians and nurses. Also, patients and families may be more willing to undergo treatment that has known side effects, and to risk treatment with unknown side effects and an unknown small chance of benefit. In the case of glioma patients, Davies et al found that many remained unaware of the poor prognosis and terminal nature of their disease. Yet, although 40% did not achieve stability of function, most would still choose radiation despite the possibility of adverse effects that include cognitive deficits.[16,17]

As a part of the Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments (SUPPORT)[18] Tsevat and colleagues found that some severely ill dying patients valued their health states as much as they valued being well, and that their surrogates consistently undervalued the utility of their life.[19] These differing views on the value of life at the end of life provide strong evidence that we should use caution in applying our own judgments.

Alternatively, a third possibility for the present findings is that knowledge of some medical oncologists still lags behind the published findings. There is good evidence that new knowledge is hard to acquire, may take years to change attitudes, and does not always lead to a change in practice anyway.[12] Hopefully, more discussion of these issues, as well as highly publicized well-designed clinical practice guidelines, can help change this situation.

**References:**


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