The Melanoma Care Coalition Takes on the Controversies

Outcomes Assessment

Based on the Regional Symposium in Monterey, California, June 10, 2006

Introduction

To assess the educational impact of our regional symposium program **The Melanoma Care Coalition Takes on the Controversies,** we conducted a controlled outcomes assessment survey in association with the Monterey, California, meeting held in June 2006. The survey instrument consisted of 2 cases with 4 decision-support questions as shown in **Tables 1 and 2**. The primary-disease case was developed and presented by Susan M. Swetter, MD, of Stanford University, and the regional disease case was developed and presented by Merrick I. Ross, MD, of the University of Texas M. D. Anderson Cancer Center. Participants from the Monterey meeting (the active group, n = 34) were surveyed regarding melanoma management strategies for these cases immediately before and after the CME symposium and at 8 weeks following the symposium. A control group of health care providers from our target audience in California (initial mailing to 5000 individuals chosen randomly from our California mailing list) was also surveyed the week of the symposium and 8 weeks later. Serving as an expert panel standard, 21 members of the Melanoma Care Coalition (MCC) answered the same questions via a Web survey approximately 2 weeks after the symposium. To encourage participation in the follow-up survey, the first 100 control and active-group participants to complete the follow-up survey received an educational 3-dimensional skin model of melanoma. While the total numbers of respondents are relatively small in this unpowered analysis (making firm conclusions difficult), some interesting trends emerge from the analysis of responses over time.

Demographics

Surveys were collected from 30 of 34 participants in the Monterey meeting, and 16 of these individuals completed the follow-up survey. Two hundred twenty-seven individuals completed the control survey within a week of the meeting, with 96 individuals completing the follow-up survey. The achievement of higher number of individuals in the control group was based on our targeted mailing with a 1% return rate goal for the follow-up surveys. Our anticipated return rate would have yielded approximately 50 control-group participants. We were pleasantly surprised by the more robust return.

Case 1. Management of Primary Melanoma

Excision Margins and Nodal Mapping

This case was designed to explore surgical approaches to an intermediate-thickness melanoma. Question 1 addressed surgical margin recommendations and the role of sentinel lymph node (SLN) biopsy. **Table 1** demonstrates that the faculty, active, and control groups were in general agreement that some type of re-excision is necessary for this patient (few respondents choosing answer a). An overwhelming majority also agreed that SLN biopsy is indicated for this patient (answers d and e). Respondents did not support conducting imaging studies with the goal of eliminating SLN biopsy for staging (answer f). The most interesting distribution of responses was the division between 1-cm and 2-cm margin recommendations (answers d and e). While the active group initially mirrored the MCC faculty, with more than 3 respondents recommending 2-cm margins for each one who recommended 1-cm margins, this ratio changed to an almost even split (52% vs 43%) after the symposium, and by the 8-week follow-up, a majority recommended 1 cm (62.5%) over 2 cm (37.5%) for this intermediate-thickness lesion. The control group did not change as drastically, with the same 3-to-1 ratio at initial survey and a 2-to-1 ratio still recommending a 2-cm margin at follow-up. These data suggest that exposure to the program, and perhaps the discussion of the National Comprehensive Cancer Network's (NCCN) acceptance of 1-cm margins in intermediate-thickness melanoma <2 mm,[1] had an impact on the active participants in Monterey, making them more comfortable with the narrower excision margin.

Follow-up Testing

The second question addressed the controversial issue of appropriate follow-up techniques for an intermediate-thickness melanoma. This question was designed to address whether individual physicians routinely order imaging studies and annual laboratory tests or conduct these tests only when warranted by physical examination or review of symptoms. As shown in **Table 1,** large percentages of the active group and the control group initially indicated that they would routinely include chest radiography and annual labs in the follow-up tests for this patient with intermediate-thickness melanoma

Table 1. Survey Responses for Case 1: A 50-year-old man presented with a 9-mm suspicious pigmented lesion on his right arm. Upon examination, the lesion was determined to have irregular borders and a raised, darker region. The lesion was excised and the pathology report indicated a 1.8-mm, non-ulcerated, Clark level IV melanoma.

	Faculty	Active Group (Attending Symposium)			Control	
	Peri-meeting (n=21)	Pre-meeting (n=30)	Immediately Post-meeting (n=30)	8-Week Post-meeting (n=16)	Peri-meeting (n=227)	4-Week Post-meeting (n=96)
1. What care would you offer this patient?						
a. Nothing further (negative margin biopsy as only treatment)	4%[*26]	0%	0%[*27]	0%	1%[*229]	0%[*98]
b. 1-cm-wide excision, no nodal staging	4%	3%	0%	0%	1%	1%
c. 2-cm-wide excision, no nodal staging	4%	0%	4%	0%	1%	2%
d. 1-cm-wide excision, sentinel lymph node biopsy	**19%**	**20%**	**43%**	**62.5%**	**23%**	**31%**
e. 2-cm-wide excision, sentinel lymph node biopsy	**65%**	**73%**	**52%**	**37.5%**	**71%**	**62%**
f. PET/CT scan and if negative only wide excision	4%	3%	0%	0%	4%	4%
2. If a SLN biopsy were performed and determined to be negative, which of the following procedures would be appropriate for follow-up?						
a. Initial exams every 3-6 months	21% [*33]	17%	15%[*27]	0%	9%[*228]	8%[*106]
b. Chest radiography and labs annually	9%	0%	0%	0%	1%	4%
c. PE/ROS-directed surveillance studies	9%	0%	0%	0%	1%	7%
d. Brain MRI and whole-body PET/CT	3%	0%	0%	0%	0%	3%
e. a, b, and c	15%	**37%**	**33%**	**31%**	**46%**	**42%**
f. a and b	15%	**23%**	**4%**	**25%**	**18%**	**17%**
g. a and c	**18%**	**17%**	**48%**	**44%**	**14%**	**4%**
h. a and d	6%	7%	0%	4%	11%	8%
i. No follow-up required	3%	0%	0%	0%	0%	0%

* Indicates allowance for multiple answers, which were not censored (total numbers of responses for each answer were summed and divided by the number of total responses for all answers for the question [value shown] after asterisk).

(>50% of participants chose answer b, e, or f). However, the faculty were more divided on this issue, perhaps reflecting the questionable value of these imaging tests, as documented in their status as "optional" recommendations in the NCCN guidelines.[1] Exposure to these guidelines appeared to have an impact on the active group–the percentage of people who chose exams every 3 to 6 months + physical exam/ review of symptoms (answer g, which is the consensus recommendation from the NCCN) rose to over 40% in the active group after the meeting and stayed elevated 8 weeks after the symposium. There was no such shift in perspective in the control group.

Case 2: Management of Regional Melanoma

Role of Completion Lymph Node Dissection

This case addresses medical and surgical approaches to the management of regional disease. The first question assessed whether the participants thought completion lymph node dissection (CLND) was necessary in a patient with a positive SLN biopsy. **Table 2** demonstrates that the majority of each group surveyed supported the recommendation for CLND. A smaller percentage would have completed a level 1 and 2 lymph node dissection or conducted a more complete assessment of tumor burden before deciding. This is consistent with Dr Ross' recommendation that CLND not be withheld except as part of a clinical trial. The proportion of people willing to do level 1 and 2 lymph node dissection rose in the active group 8 weeks after the meeting. We have no plausible explanation for this shift. Interestingly, in the control group, the proportion who would assess SLN tumor burden prior to further surgery dropped a bit, and the proportion who would complete a CLND rose at the 8-week follow-up. This change may indicate that community health care providers are receiving information about the importance of CLND and the inability to use SLN tumor burden to accurately predict nonsentinel lymph node involvement at this time.

Adjuvant Therapy Options

The last question addressed medical adjuvant therapy options in a patient who has had a CLND. As is shown in **Table 2,** very few individuals would offer "observation only" to this patient with stage IIIA disease, noting the value of offering medical therapy to reduce the risk of disease relapse. The interesting split was among the key adjuvant therapy options: the standard approved therapy (1 year of high-dose IFN alfa-2b), 1-month induction with IFN alfa-2b (a current Intergroup clinical trial), or a vaccine clinical trial. Immediately after the meeting, the proportion of individuals in the active group who would enroll the patient in a vaccine clinical trial fell (a drop from around 25% of respondents to less than 10%), and the proportion who would opt for 1 year of standard high-dose IFN increased. Perhaps this change was related to the review of the data supporting IFN efficacy in this population as well as the negative results from recent vaccine clinical trials. In support of the specific educational impact of the Monterey meeting, the percentages of individuals choosing vaccine therapy (around 25%) did not change in the control group over time. Interestingly, after the meeting, the active group still favored an IFN regimen, but there seems to have been some migration from recommending the 1-year regimen to the 1-month induction regimen as part of a clinical trial. The rationale for this change is unknown, although it may indicate awareness of the benefits of IFN but uncertainty about the dose required to provide that benefit.

Summary

These results show that an interactive, case-based educational program in melanoma can have an educational impact in the midterm. The change in some of the opinions in the active group after the meeting may be explained by selection bias–the individuals who completed the survey postmeeting do not represent the full population of physicians who attended the meeting. To address this possibility of selection bias, we recut the data to see if the same trends were seen if we only used data from individuals completing the full series of surveys (data not shown). The trends were the same as those seen with the full analyses, with the exception that the active group completing all the surveys did not show migration to a recommendation of 1-month of IFN as the adjuvant therapy option in the 8-week follow-up analysis of the regional disease case. Alternatively, the change in opinions after the meeting may reflect dissipation of the educational impact because the concepts were not reinforced over the 8-week period. This finding argues for the value of consistent educational content given at frequent intervals to support sustained learning. Interestingly, the most sustained impact of the education seems to fall with concepts that were reinforced with NCCN guidelines (ie, surgical margins and follow-up testing). This may indicate a differential effect of high-level consensus recommendations over emerging data/opinions in shaping long-term opinion. We hope to use the data to refine additional outcomes assessment surveys and improve the educational methods for our 2007 Melanoma Care Coalition program.

Reference

1. National Comprehensive Cancer Network. *Clinical Practice Guidelines in Oncology*--v.2.2006: Melanoma. Jenkintown, Pa: National Comprehensive Cancer Network; 2006.

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Table 2. Survey Responses for Case 2: A 40-year-old woman was diagnosed with a 2.2-mm, non-ulcerated melanoma on her left upper back. A wide local excision and SLN biopsy were performed. The patient was discovered to have 2 of 3 SLNs positive for disease. Chest radiography was determined to be within normal limits.

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3. What surgical technique would you recommend for t his patient?						
a. No further surgery at this time	4 %[*25]	0%[*29]	0%[*27]	0%	3% [*233]	3%[*97]
b. Level 1 and 2 lymph node dissection	16%	3%	4%	25%	7%	6%
c. Completion lymph node dissection	68%	**72%**	**89%**	**63%**	**67%**	**80%**
d. More information about tumor burden is re quired to make this decision	12%	**24%**	**7%**	**13%**	**24%**	**10%**
e. other	0%	0%	0%	0%	0%	1%
4. If a CLND were performed on this patient and was negative for additional metastases, what additional therapy would you offer her?						
a. Observation only	15% [*33]	13 [*32]	7[*30]	13	15 [*262]	10 [*112]
b. One year of interferon per protocol	**51%**	**50%**	**73%**	**56%**	**47%**	**48%**
c. One month of high -dose interferon (as part of trial)	**12%**	**13%**	**13%**	**25%**	**12%**	**14%**
d. Enrollment in a melanoma vaccine trial	**21%**	**25%**	**7%**	**6%**	**26%**	**27%**
e. Other	0%	0%	0%	0%	0%	2%

* Indicates allowance for multiple answers, which were not censored (total numbers of responses for each answer were summed and divided by the number of total responses for all answers for the question [value shown] after asterisk).