GRANT NUMBER: DAMD17-94-J-4507

TITLE: Managing Menopausal Symptoms in Breast Cancer Survivors

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REPORT DATE: October 1998

TYPE OF REPORT: Annual

PREPARED FOR: Commander
U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5102

DISTRIBUTION STATEMENT: Approved for public release;
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19990928 382

DTIC QUALITY INSPECTED 4
1. AGENCY USE ONLY (Leave blank)

2. REPORT DATE
   October 1998

3. REPORT TYPE AND DATES COVERED
   Annual (23 Sep 97 - 22 Sep 98)

4. TITLE AND SUBTITLE
   Managing Menopausal Symptoms in Breast Cancer Survivors

5. FUNDING NUMBERS
   DAMD17-94-J-4507

6. AUTHOR(S)
   Patricia A. Ganz, M.D.

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
   University of California, Los Angeles
   Los Angeles, CA 90024

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)
   Commander
   U.S. Army Medical Research and Materiel Command
   Fort Detrick, Frederick, Maryland 21702-5012

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION / AVAILABILITY STATEMENT
   Approved for public release; distribution unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200)
   Symptoms of estrogen deprivation commonly occur in breast cancer survivors as a result of natural menopause, or menopause that is precipitated prematurely by chemotherapy or anti-estrogen therapy with tamoxifen. In this research program, we are evaluating the role of a comprehensive menopausal assessment (CMA) and intervention program for management of menopausal symptoms in breast cancer survivors. During the past funding year, we have continued recruiting women and randomizing them into the experimental or usual-care groups. The experimental group receives immediate assessment and intervention for their symptoms, while the usual-care group receives no menopause related intervention during a four month period of observation. Systematic assessment of each breast cancer survivor assigned to the intervention group permits treatment of multiple symptoms simultaneously with a variety of non-estrogen pharmacologic, educational and behavioral interventions. We will be assessing the impact of the intervention on quality of life and the resolution of specific menopausal symptoms.

14. SUBJECT TERMS
   Breast Cancer

15. NUMBER OF PAGES
   8

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT
   Unclassified

18. SECURITY CLASSIFICATION OF THIS PAGE
   Unclassified

19. SECURITY CLASSIFICATION OF ABSTRACT
   Unclassified

20. LIMITATION OF ABSTRACT
   Unlimited
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Patricia Chang 10/1/98
PI - Signature Date
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Introduction

Breast cancer is the leading cause of cancer in women, affecting 1 in 9 women in the U.S. According to the most recent SEER data, women with breast cancer have a relative 5-year survival rate of over 75%. Earlier detection of breast cancer, as well as improvements in post-operative adjuvant therapies, have enhanced the long term survival for women with this diagnosis. Symptoms of estrogen deprivation commonly occur in breast cancer survivors as a result of natural menopause, or menopause that is precipitated prematurely by chemotherapy or anti-estrogen therapy with tamoxifen. Hormone replacement therapy, the most efficacious treatment for these symptoms, is generally contraindicated in breast cancer survivors because of its potential risk of inducing a recurrence of breast cancer. Thus, many breast cancer survivors endure considerable morbidity and impaired quality of life (QL) as a result.

This research program will evaluate the role of a comprehensive menopausal assessment (CMA) and intervention program for management of menopausal symptoms in breast cancer survivors. Using a randomized controlled design, we will assign symptomatic postmenopausal breast cancer survivors to an experimental or usual-care group. The experimental group will receive immediate assessment and intervention for their symptoms while the control group will receive no menopause related intervention during a four month period of observation. Systematic assessment of each breast cancer survivor assigned to the intervention will permit treatment of multiple symptoms simultaneously with a variety of non-hormonal pharmacologic, educational and behavioral interventions. The intervention program will be portable, and suitable for implementation in a variety of health care settings. We will evaluate the impact of the intervention on QL and the resolution of specific menopausal symptoms. QL will be assessed using standardized measures of health status, mood, and sexual functioning. Menopausal symptoms will be monitored using self-report diary cards. Our primary hypothesis is that the intervention program will lead to significant improvement in QL for breast cancer survivors.

Progress report on fourth year of funding

Recruitment and Subject Characteristics

During the past year, we continued accruing subjects for the randomized trial. As of October 1, 1998, a total of 197 women have been screened over the telephone. Of those, 121 (61%) were eligible and interested in participating in the study.

Women were found ineligible for four main reasons: Inadequate target symptoms (38%), Refusal to try our study medications (26%), Medical ineligibility (24%), and Already tried all our study medications (7%). There are no significant differences between the 76 ineligible women and the 121 eligible women in age, ethnicity, marital status, or tamoxifen use. Below are some demographic statistics from the two groups.
DOD Continuation Report

<table>
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<th>Eligible (N=121)</th>
<th>Not Eligible (N=76)</th>
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<tr>
<td>Mean Age</td>
<td>53.8</td>
<td>54.4</td>
</tr>
<tr>
<td>% White</td>
<td>88.4%</td>
<td>88.2%</td>
</tr>
<tr>
<td>% Married</td>
<td>63.6%</td>
<td>71.0%</td>
</tr>
<tr>
<td>% Currently Taking Tamoxifen</td>
<td>53.7%</td>
<td>48.0%</td>
</tr>
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The current status of these 108 eligible women is as follows:

68 have completed the study
  31 in the experimental group
  37 in the usual care group
4 are currently in the study (and are expected to finish by 12/98)
21 have dropped out voluntarily
  8 had no time or were too busy
  13 had other reasons
28 were determined to be ineligible for the study after an in-person evaluation
  9 had inadequate target symptoms
  8 had psychiatric difficulties
  5 cancelled their appointments and refused to reschedule
  3 were medically ineligible
  2 refused to take study medications
  1 had a problem filling in our forms

The attached Tracking Flow Chart (on page 8) gives more detail about how many women have completed each phase of the study. There are currently only four women who are still in the study, and recruitment is now closed. We anticipate that these women will complete the study by December, 1998, bringing our total sample size to n=72.

According to our sample size calculations, this sample size will be great enough to detect a significant difference between interventions and controls on our two main outcomes: the MOS vitality scale, and a scale we created by summing seven BCPT items related to our target symptoms. These seven symptoms are: hot flashes, difficulty with bladder control when laughing or crying, difficulty with bladder control at other times, genital itching/irritation, vaginal dryness, pain with intercourse, and night sweats.

Target Symptoms in Study Subjects

The three target symptoms under evaluation in this study are hot flashes, vaginal dryness and urinary incontinence. Among the 121 women eligible at the telephone screener, 90% reported severe hot flashes, 41% reported vaginal dryness and 16% reported stress incontinence. Forty percent of entering women reported two or more of these symptoms. During the study, women report the frequency and severity of their target symptoms on baseline and follow-up questionnaires and also on diary cards, which they fill out on a daily basis for the four weeks preceding their baseline and their follow-up visits. Change in symptoms over time will be described in the two study groups.
Work in Progress

Three papers from this study are in various stages of completion. We are almost finished writing a paper, which was described in last year’s continuation report, about the creation of the atrophy and inflammation scales from the Vaginal Exam Form. We are currently writing a paper on the effect of tamoxifen on vaginal symptoms and examination. Finally, we are also beginning an analysis of the use of alternative therapies, such as herbal remedies, special diet, and psychosocial therapies from the baseline visit data. This year, we also plan to begin the outcome analysis, comparing the effectiveness of the Comprehensive Menopausal Assessment (CMA).

Conclusion

As of December, 1998, we will be completely finished collecting data, and plan to spend the next year concentrating on data analysis and writing papers. We plan to report on several topics, including use of alternative therapies, effectiveness of the CMA, and evaluation of the hormonal data. This study is rich in data, and is sure to produce some interesting results.

Although this was the final year of funding, we have applied for and received a no-cost extension in order to complete our analyses. We will report our final findings next year.
UCLA Menopause Study
Tracking Flow Chart
As of October 1, 1998