Early Breast Cancer

Understanding Early Breast Cancer

The term "early breast cancer" refers to breast cancer in stages 0, I and II at the time of diagnosis. With stage 0, the cancer is non-invasive, meaning it has not spread to surrounding normal tissue (sometimes called carcinoma in-situ). In stage I cancer, the tumor is two centimeters in size or smaller and has not spread outside the breast. And, in stage II, either:

- There is no tumor in the breast, but cancer is found in the axillary lymph nodes (nodes under the arms); or,
- The tumor is two centimeters or smaller and has spread to the axillary lymph nodes; or,
- The tumor is two-to-five centimeters and has spread to the axillary lymph nodes; or,
- The tumor is larger than five centimeters and has not spread to the axillary lymph nodes or,
- The number of lymph nodes involved with cancer is not more than three.[1]

In early breast cancer, the tumor is usually removed by surgery. However, undetectable microscopic deposits of the disease may sometimes remain behind. After several years or even decades, these deposits may result in the cancer coming back, a phenomenon called "recurrence." Health care professionals use a number of factors to predict a woman's risk of recurrence, including but not limited to: whether the tumor has spread to the lymph nodes (known as node-positive breast cancer), tumor size at diagnosis, how the cancer cells look under a microscope (histological grade), if hormone receptors in the tumor are positive or negative, and whether the tumor is positive or negative for the growth-promoting protein HER2/*neu*.

When health care professionals consider a woman with breast cancer to be at either high or medium risk for recurrence, they typically suggest that following surgery to remove the tumor, the patient receive additional treatment with medication that may include hormonal therapy, such as tamoxifen. Therapy during this postsurgery period is commonly referred to as "adjuvant" therapy or treatment. Recent research suggests that some women who are considered at low risk for recurrence may also benefit from additional therapy after surgery. This research shows that additional therapy helps reduce risk of recurrence and improves overall survival for some women with breast cancer.

###

Breast cancer is the most common cancer among women (excluding skin cancers) and is the second leading cause of cancer deaths among women worldwide. Globally, more than 1.2 million people will be diagnosed with early breast cancer this year.[2]

The term "early breast cancer" refers to breast cancer in stages 0, I and II at the time of diagnosis. With stage 0, the cancer is non-invasive, meaning it has not spread to surrounding normal tissue

©2005 SWHR

(sometimes called carcinoma in-situ). In stage I cancer, the tumor is two centimeters in size or smaller and has not spread outside the breast. And, in stage II, either:

- There is no tumor in the breast, but cancer is found in the axillary lymph nodes (nodes under the arms); or,
- The tumor is two centimeters or smaller and has spread to the axillary lymph nodes; or,
- The tumor is two-to-five centimeters and has spread to the axillary lymph nodes; or,
- The tumor is larger than five centimeters and has not spread to the axillary lymph nodes or,[3]
- The number of lymph nodes involved with cancer is not more than three.[1]

In early breast cancer, the tumor is usually removed surgically, either with breast-conserving surgery (lumpectomy) or by removing the breast (mastectomy). Based on new technologies for early detection, between 70 and 75% of women diagnosed with breast cancer are possible candidates for lumpectomy.[11] Research shows that women with early-stage breast cancer who have breast-sparing surgery along with radiation have similar survival rates to those who have a mastectomy.[4]

But despite these promising results, microscopic deposits of the disease, undetectable by current diagnostic tools, may sometimes remain behind. These deposits may, after several years or even several decades, develop into a clinically detectable recurrence of the disease. For patients who are considered at intermediate or high risk for recurrence, health care professionals will often offer post-surgical treatment (adjuvant therapy) as an option to help reduce this risk. However, recent research indicates that some women who are considered at "low risk" could also benefit from adjuvant cancer therapy.[5-10]

At present, women with breast cancer have numerous treatment options available to them. However, this report only focuses on women with early breast cancer who have received standard adjuvant hormonal therapy, tamoxifen, which in North America is the most commonly prescribed adjuvant therapy.

A retrospective observational study conducted in British Columbia revealed that since the introduction of adjuvant therapy into standard clinical practice, there has been a trend toward superior outcomes in women with breast cancer treated with adjuvant therapy compared to women treated in earlier decades, before adjuvant therapy was widely practiced.[12] Additionally, in a meta-analysis of more than 37,000 women who have been in randomized trials of adjuvant tamoxifen and/or chemotherapy, data showed that overall survival rates improved significantly when the use of adjuvant therapy became standard practice.[5] However, data show that many women still face the possibility of their cancer returning.

Added to these research findings, a new survey conducted by the Roper organization among 300 breast cancer patients reveals that women are worried about their risk of recurrence, but many have not discussed these concerns with their health care professionals. Also, risk communication research shows that even when patients have these discussions with health care professionals, there can be serious gaps in the communication process that leave women without the information they need.

©2005 SWHR

Therefore, effective and comprehensive communication between patients and health care professionals is integral for conveying a woman's risk of recurrence and thus ensuring proper treatment of early breast cancer. However, a critical gap remains in the understanding of, and communication about, risk of recurrence in women with early breast cancer after they have successfully been treated with surgery. This lack of understanding factors into patient and health care professional treatment decisions, and warrants further exploration to ensure long-term patient health and survival.

###

Endnotes

1. Vadhat L, MD, director of the Breast Cancer Research Program and Associate Professor of Clinical Medicine, Weill Medical College of Cornell University. Provided April 27, 2005.

2. General Breast Cancer Info: Breast Cancer Cases/Deaths Per Year (U.S. and World). Accessed April 12, 2005. Available at: http://imaginis.com/breasthealth/statistics.asp?mode=1.

3. Singletary S. Revision of the American Joint Committee on cancer staging system for breast cancer. J Clin Oncol. 2002;20:3628.

4. National Cancer Institute. Surgery choices for women with early breast cancer. Accessed April 12, 2005. Available at: http://www.nci.nih.gov/cancertopics/breast-cancer-surgery-choices.

5. Early Breast Cancer Trialists' Collaborative Group. Tamoxifen for early breast cancer: an overview of the randomized trials. Lancet. 1998;351:1451-1466.

6. Fisher B, Constantino J, Redmond C, et al. A randomized clinical trial evaluating tamoxifen in the treatment of patients with node-negative breast cancer who have estrogen receptor-positive tumors. N Engl J Med. 1989;320:479-484.

7. Fisher B, Jeong J-H, Bryant J, et al. Treatment of lymph-node-negative, estrogen receptor-positive breast cancer: long-term findings from National Surgical Adjuvant Breast and Bowel Project randomized clinical trials. Lancet. 2004;364:858-868.

8. Fisher B, Dignam J, Bryant J, DeCillis A, et al. Five versus more than five years of tamoxifen therapy for breast cancer patients with negative lymph nodes and estrogen receptor-positive tumors. J Natl Can Inst. 1996;88:1529-1542.

9. Fisher B, Dignam J, Bryant J, Wolmark N. Five versus more than five years of tamoxifen for lymph node-negative breast cancer: updated findings from the National Surgical Adjuvant Breast and Bowel Project B-14 randomized trial. J Natl Can Inst. 2001;93:684-689.

10. Chia S, Speers CH, Bryce CJ, Hayes MM, Olivotto IA. Ten-year outcomes in a population-based cohort of node-negative, lymphatic and vascular invasion-negative early breast cancers without adjuvant systemic therapies. J Clin Oncol. 2004;22:1630-1637.

©2005 SWHR

11. National Women's Health Information Center. Why would any woman pick mastectomy if the survival rate is the same? Accessed April 12, 2005.

12. Olivotto, IA, Bajdik, CD, Plenderleith, IH, et al. Adjuvant systemic therapy and survival after breast cancer. N Engl J Med. 1994;330:805-810.

©2005 SWHR