

Division of Cancer Prevention and Control

Volume 19, 2003

Female Breast Cancer in Florida 1991-1999 Prepared by: Lydia Voti, M.S.

Introduction

The anatomy of the breasts Each breast is made of glands for milk production (lobules), blood vessels, lymph vessels, fatty and connective tissue. The lobules are linked to the nipple through thin tubes called ducts. Fat surrounds the lobules and the ducts. The lymph vessels carry a colorless fluid called the lymph to the lymph nodes. Clusters of lymph nodes directly related to the breast function are found under the arm (axilla), above the collarbone and in the chest.



Most breast cancers begin in the lobular and the ductal tissue. The majority of ductal and lobular cancers are in-situ, and if detected and treated at this stage they will not progress to infiltrate the ducts or the lobes. The biological progress of the disease, if untreated, is breaking through the lobules and the ducts, to the surrounding fatty tissue and potentially spreading to the lymph nodes or other organs.

About Breast Cancer in General

Breast cancer is the most common non-dermatologic cancer among American women and is second only to lung cancer as a cause of cancerrelated deaths. On January 1999, SEER estimated the prevalence of breast cancer cases in the US to be 2.051.280. It was also estimated that more than 200,000 new breast cancers were diagnosed in 2002 in the US. Considering the female population only, the probability of being diagnosed with breast cancer before the age of 40 is 0.44%. For women between 40 and 50 the probability increases to 4.7%, and it reaches 10% for women older than 60.

The incidence of breast cancer has

been rising in the US for the past two decades, while mortality has remained relatively stable. The incidence rate of breast cancer in Florida is slightly lower than that of the US. For Floridian women, the age-adjusted incidence rate of breast cancer in 1999 was 125.2 cases per 100,000 population, compared to the 135.9 cases per 100,000 population per year rate of the US. The same year, 2,532 deaths with underlying cause of death breast cancer were reported in Florida, accounting for a mortality rate of 23 cases per 100,000, compared to the mortality rate of 27 cases per 100,000 for the US. In terms of survival, over the past 25 (Continued on page 2)

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years, the five-year relative survival from breast cancer drastically increased from 75% to 86%, due to advancements in treatment and possibly due to early detection.

Breast cancer and risk factors

As with most cancers, the probability of developing breast cancer increases as a woman gets older. However, there are additional conditions increasing a woman's risk of developing breast cancer, such as a family history of breast cancer (of first-degree female relatives from the maternal side), breast cancers caused by benign or non-invasive conditions (atypical hyperplasia, lobular carcinoma in-situ), and mutations or polymorphisms in some genes (e.g., BRCA1, BRCA2). It is estimated that only 5% of breast cancers can be attributed to genetic factors. Women with dense breasts, that is, breasts with high density of lobular and ductal tissue, are more prone in developing breast cancer, since most breast cancers occur in the lobular and ductal tissue.

Increased risk of developing breast cancer was found after prolonged exposure to estrogen (over 15 years), in postmenopausal women using estrogen replacement therapy. Long use of oral contraceptives (over 10 years) in premenopausal women was also found to increase the risk of breast cancer⁶. Endogenous endocrine factors may promote the development of breast cancer and may even be involved in etiology. Situations where these endocrine factors get into play are late childbearing, lack of breastfeeding, early menarche, or late menopause.

Radiation exposure during puberty, especially among women treated with radiation at an early age for Hodgkin's disease has been associated with breast cancer. Finally, obesity/ ponderosity, parity, and heavy alcohol use have been suggested as potential risk factors for developing breast cancer by some studies. Studies of the role of specific dietary components, and of abortion, have produced conflicting results.

Florida and US incidence and mortality

Description of the breast cancers diagnosed in Florida 1991-1999

A total of 103,413 invasive primary breast tumors were diagnosed between 1991 and 1999 among female Florida residents. An additional 15,186 in-situ breast primaries were diagnosed in the same time period. The vast majority (65.3%) of the breast primaries fall into two histologic classifications: Intraductal carcinomas and Infiltrating ductal carcinomas.

The number of new invasive primaries varied over time, ranging from 10,748 in 1991 to 12,712 in 1999. Of these 103,413 primary cancers, 91.5% were diagnosed in whites, 7.1% in blacks and 1.7% in patients of unknown or other races.

In-Situ

Local
Regional
Distant
Unknown



Figure I

About 87.2% of the cancer patients were diagnosed with invasive tumors and 12.8% with in-situ. Figure I demonstrates the break down of the data by "stage of disease".

Trends over time

Breast cancer incidence in Florida has always been lower than in the rest of the country, as the country's incidence is reflected by the SEER registry data. However, the difference in incidence between whites and non-whites observed in the US is slightly more pronounced in Florida, with white women having higher incidence of rates in breast cancer than on-white women. (Figure II)

(Continued on page 3)

"Your action in life set your course and determine the destination of your travels. Your reaction in life create the climate in which you travel."

Beth Johnson

Figure II



A similar trend is observed in the mortality rates for the same time period. Overall, there is a slight decline over time in the mortality rate of breast cancer, which is sharper in the white population than in the non-white population. In the graph below, the mortality rates for blacks in the US are presented instead of non-whites, in the absence of public use files grouping together the non-white mortality rates for the US. Note though that in Florida 95% of the non-white population is black. (Figure III)

Figure III

Florida and US, 1991-1999 Age-adjusted mortality rates of breast cancer by race



(Continued from page 3)

Stage-specific incidence and racial distribution in Florida

There is an increase in the number of in-situ stage breast primary tumors that are being diagnosed over time, ranging from 1,088 cases in 1991 to 2,550 cases in 1999. A similar trend is observed for the local stage breast primaries. This trend, which is also reflected in the corresponding ageadjusted incidence rates, may result from an increase in the awareness and/or the implementation of breast cancer screening guidelines. The incidence of regional disease was rather stable over time and a slight decrease can be seen in the incidence of distant disease. (Figure IV)





The above mentioned trends are more pronounced for nonwhite women than white women. In fact, there is a significant difference in the rates of tumors diagnosed at local stage between white and non-white women. White women are almost twice more likely to be diagnosed with breast cancer at local stage than non-white women in Florida. (See Figure V). Contrary to one's expectations, this difference is not present in the in-situ tumors. The age-adjusted rates of breast cancer are the same for whites and non-whites for disease diagnosed at the regional and distant Stage (See Figures V and VI).



Figure VI



That is, more breast tumors are being diagnosed at local than in-situ stage, regional or distant stages. There is also an upward trend in the incidence of breast cancer diagnosed at local or in-situ stages and a mild downward trend in the incidence of distant disease. These observations are true both for whites and non-whites. A comparison of the age adjusted rates of breast cancer across races shows that whites are more likely to be diagnosed with breast cancer at local stage than non-whites. However, there is no difference between races in the age-adjusted rates of breast tumors diagnosed at other stages. In other words the higher incidence of breast cancer in whites (than non-whites) can all be explained by the higher incidence of localized disease.

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Treatment options

There are various treatment options for breast cancer depending on the stage at which it is diagnosed, the tumor's histologic differentiation, and whether it is receptor-negative. It usually involves surgery to remove the tumor, and it is followed by radiation or adjuvant systemic therapy (chemotherapy and hormone therapy). A number of on-going clinical trials are open for patient participation, offering nonstandard treatment. Information on these trials can be obtained by contacting the NCI Cancer Information Service at 1-800-4-CANCER, or the NCI Cancer Trials web page at <u>http://</u> <u>cancertrials.nci.nih.gov</u>

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Save the D ate FCDS Annual Meeting July 30th

Belleview Biltmore Resort & Spa Clearwater, FL

25 Belleview Boulevard Clearwater, FL 33756 \$99.00 (Single/Double) (800) 237-8947 / (727) 442-6171 Room Reservations Cut-off date is June 29th, 2003 Website: www.belleviewbiltmore.com Conference Registration Fee: \$25.00

A per the F	A personalized version of this letter will be mailed to all the Registrars and Administrators of all the Hospitals, Ambulatory Centers, and Pathology Laboratories.								
The c h h h	documents mentioned on the letter below can be found here: ttp://naaccr.org/Training/files/AcademicLetterInterpretingHIPAA.pdf ttp://naaccr.org/Training/files/LegalLetterInterpretingHIPAA.pdf ttp://naaccr.org/Training/files/FAQsRegardingHIPAAandCancerRegistries.pdf								
	Dear Tumor Registrar/Administrator:								
	The Health Insurance Portability and Accountability act of 1996 (HIPAA) became law April 14, 2001. While most organizations have two full years – until April 14, 2003 – to comply, questions regarding how this new law impacts cancer reporting have arisen.								
	The North American Association of Central Cancer Registries (NAACCR) has pro- vided materials that address these questions. As you will see, HIPAA regulations only minimally impact current state cancer reporting procedures. Specifically,								
	HIPAA allows for the reporting of identifiable cancer data to public health entities. Because the Florida Cancer Data System falls under the definition of a public health entity, HIPAA allows your facility to continue to report data to us in compliance with state law. Written informed consent from each can- cer patient reported to public health entities is not required under HIPAA; rather hospitals must simply document that reporting has occurred.								
	Enclosed please find a copy of a letter from the NAACCR legal counsel, an aca- demic interpretation of HIPAA from Professor James G. Hodge, Jr., J.D., LL.M., of the Georgetown University Law Center, and a list of frequently asked questions and answers.								
	We hope this material is beneficial in your understanding the HIPAA requirements regarding cancer incidence reporting.								
	Sincerely,								
	Jill A. MacKinnon Administrative Director, FCDS								
	cc: Dr. Youjie Huang, DOH								

*** CALENDAR OF EVENTS జ్మం జృం జృం జృం జృం జృం జృం జృం క National Cancer **Registrars Week National Cancer Registrars Association** April 7-11, 2003 29th Annual Educational Conference "Cancer Registrars Working "Networks of Steel: Building a World Free of Cancer" Together Toward a World Date: May 13—16, 2003 Free of Cancer" Location: The Westin Convention Center, Pittsburg, Pennsylvania Website: www.ncra-usa.org The FI orida Cancer Data System congratulates all the cancer ۲ ۲ NAACCR ANNUAL MEETING registrars as they celebrate Na-Ŵ "Harmony and Diversity in Cancer Registration and Surtional Cancer Registrars Week, ∎ ŵ veillance: Meeting Community Health Needs" April 7 - 11, 2003. FCDS recog-E_)o E_)o :: **Dates**: June 8 –14, 2003 nizes the efforts of the cancer Location: Renaissance Ilikai Waikiki Hotel registrars throughout Florida • ∰ Honolulu, Hawaii during the course of the year in the collection and reporting of Website: www.naaccr.org Ŷ your annual cases. Without • M your effort and support re-ADVANCE CANCER REGISTRY TRAINING PROGRAM ŵ searchers, doctors and the medi-Dates: July 16-18, 2003 ŵ cal community would not be Location: Emory University in Atlanta, Georgia able to continue their research Contact: Steven Roffers, PA, CTR at (404) 727-4535 for a fight against cancer. Website: http://cancer.sph.emory.edu Congratul ations and have a FCDS ANNUAL MEETING ¥}°∰ wonderful week! July 30th, 2003 Location: Belleview Biltmore Resort & Spa Clearwater, FL ŵ ŵ ŵ ŵ ŵ ŵ ŵ ŵ ŵ **Registration Fee:** \$25.00 **Contact**: Betty Fernandez/Bleu Herard (305) 243-4600 **On-Line Cancer** FCRA ANNUAL MEETING **Registry Program** July 31—August 1, 2003 Program is ap-Location: Belleview Biltmore Resort & Spa Clearwater, FL proved by NCRA Registration Fee: \$100.00 Member/\$125.00 Non-members Contact: Denise Colburn (727) 518-2522 **Orange County Commu-CTR EXAM DATES AND DEADLINE** nity College, Institute for Business, Industry and **Application Date**: August 1, 2003 **Examination Date**: September 13, 2003 Government is now offer-Exam Fee: \$200.00 NCRA Member ing an on-line Cancer \$275.00 All other candidates **Registry Management**

Website: www.ncra-usa.org

Program. Visit their website for additional information at

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	Sharpen Your Skills Puzzle Answer Key (from Register—Volume XVIII)														Register A joint project of the Sylvester Comprehensive Cancer and Center and the F lorida D epartment of Health		
															University of Miami School of Medicine PO Box 016960 (D4-11)		
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Florida Cancer Data System Sylvester Comprehensive Cancer Center University of Miami School of Medicine PO Box 016960 (D4-11) Miami, FL 33101

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