Breast Cancer in Arab Countries

Nagi S. El Saghir, MD, FACP
Clinical Professor, Hematology-Oncology, American University of Beirut Faculty of Medicine and Medical Center, Beirut, Lebanon, nagi.saghir@aub.edu.lb

ISSN: 2070-254X

Breast cancer has become one of the most important health problems for women in many Arab countries. It is the most common cancer among women from many Arab countries. We will review all available data regarding incidence, stages at presentation, type of surgery, availability of radiotherapy, and efforts at early detection and prevention.

Cancer prevention and early detection are the most effective ways to control the disease. Early detection of breast cancer is considered part of prevention of the disease. Breast cancer is the most frequent cancer in Arab women constituting 14% to 42% of all women cancers. ASR Incidence Rates vary from 9.5 to 50 cases/100.000 women/year with recent reports rising even further. Breast cancer in Arab countries presents almost 10 years younger than that in USA and Europe. Median age at presentation is 48-52 yrs and 50% of cases are below the age of 50 whereas only 25% of cases in industrialized nations are below the age of 50 years 1. Age-adjusted incidence rates ASR for breast cancer has increased in many Arab countries such as Lebanon (from 20 in 1996 to 46.7 in 1998 and up to 69/100.000 women/year), Jordan (ASR was increased from 7.6/100.000 women in 1982 to 32.8/100000 in 1997), Palestinians (ASR up by 93%), Egypt ASR up to 49.6, Kuwait ASR up to 50 as well as other Arab Gulf countries. Although the rates are still below those in industrialized nations, they are rising and may be expected to reach the same levels. Rise may be due recent changes in lifestyle, a diet more rich in animal fat, decrease in physical activity and exercise, delay of ages of marriage and first pregnancy from the late teens and early twenties to later ages. Breast feeding has decreased. Other risk factors may include radiation exposure, pollution and exposure to carcinogenic compounds such as pesticides but remains unknown. Prolonged exposure to birth control pills in premenopausal women, and especially hormone replacement therapy in post-menopausal women increase the risk of breast cancer are not well documented in Arab countries. Reports on genetic mutations of high-risk low-prevalence genes BRCA-1, BRCA-2 are limited in Arab populations while reports on low-risk high-prevalence genes such as CHEK2 are non-existent. Late presentations are very common. 60%-80% of cases are locally advanced or metastatic. Delays are due lack of education, shyness and fear. Young women tend to have their diagnosis of breast cancer delayed because of decreased awareness and low index of suspicion from their primary physicians. Patients often wait till tumors have grown larger of became attached to the underlying chest wall, or the overlying skin. The patient may present with redness of the skin or ulceration. A bloody nipple discharge may be the presenting complaint. A palpable mass in the axilla is not an uncommon presentation in cases of locally advanced breast cancer. Inflammatory breast cancer presents with a rapidly growing inflamed, thickened and red overlying breast skin was thought for some time to be very common in Tunisia but recent reports indicate that inflammatory breast cancer represents only 5-7% of cases in Tunisia. However, recent widespread campaigns of awareness and efforts at screening, in several Arab countries have led to detection of cases at early stages such as small lumps or abnormal mammography findings and microcalcifications. The goal of prevention is to reduce the incidence of breast cancer and to reduce breast cancer associated mortality. Primary prevention refers to methods aiming to reduce incidence by eliminating causes and carcinogenesis through dietary changes, exercise, reducing obesity or surgery to BRCA carriers, or chemoprevention with tamoxifen or raloxifen, or more recently lasofoxifene; and by controlling and reducing the use of hormone replacement therapy in post-menopausal women. Reduction of Incidence and Mortality from breast cancer may be achieved by secondary prevention which refers to screening and early detection. Screening is designed to discover small tumors before they manifest themselves clinically. To achieve goals of screening and early detection, that is, reduce incidence and mortality, society should plan on discovering tumors at early stages and be able to treat them successfully. Improving quality of diagnosis and treatment is an essential part of a national plan to control breast cancer. Population Screening is rarely practiced in most Arab Countries. When it is done, where resources are available, it should include Breast Self Exam (BSE), Clinical Breast Exam (CBE) and annual Screening Mammography starting at age 40 1. Locally advanced cases could be easily seen and/or palpated. Advanced breast cancer is devastating not only to women, but also to husbands and children. Husbands should be targeted to encourage women to enroll in awareness, screening & early detection campaigns. Husbands and families should be targeted with massive education campaigns to support women and know that breast cancer diagnosis does not mean death. Women and their husbands should be informed that early breast cancer is highly curable with partial breast surgery without mutilation of mastectomy, radiation and adjuvant systemic therapy. Prevention and screening for locally advanced breast cancer should be a priority in most Arab countries. It can be achieved with breast self-examination, clinical breast examination, continuous awareness campaigns and advocacy efforts, and new clinical programs and initiatives with training of social workers and nurses to teach and examine breasts of women in their homes and community centers 2. This is applicable in all Arab countries. In countries where resources are available, screening mammography is recommended starting age 40. Early breast cancer is treated by primary surgery. Women should be offered the choice of partial mastectomy with radiation therapy, or modified

radical mastectomy. Comfortably negative margins are important in young women because of higher risks of local recurrence. Reconstruction is important. Sentinel lymph node biopsy needs expertise, training and equipment and reduces long term lymphedema. Training and expertise of surgeons for SLNB is important. Adjuvant therapy includes chemotherapy, targeted therapy, and hormonal therapy. Locally advanced breast cancer is treated with neoadjuvant pre-operative therapy. Radiation therapy centers in Arab countries lack in numbers and are mostly distributed in major cities and make it less available for many women who may be otherwise candidates for partial mastectomy and radiation therapy. Guidelines for low and middle-income countries are published and readers are also referred to the special supplement published in Cancer by the Breast Health Global Initiative 3-6

References

1. El Saghir NS, Khalil MK, Eid T, El Kinge AR, Charafeddine M, Geara F, Seoud M, Shamseddine AI. Trends in epidemiology and management of breast cancer in developing Arab countries: a literature and registry analysis. Int J Surg 2007 Aug; 5(4): 225-33.

2. Boulos S, Gadallah M, Neguib S, Essam E, Youssef A, Costa A, Mittra I, Miller AB. Breast screening in the emerging world: high prevalence of breast cancer in Cairo. Breast 2005 Oct; 14(5): 340-6

3. Anderson BO, Yip CH, Smith RA, et al. Guideline implementation for breast healthcare in low- and middle income countries: overview of the breast health global initiative summit 2007. Cancer 2008; 113 (8 suppl): 2221-2242

4. El Saghir NS, Eniu A, Carlson RW, Aziz Z, Vorobiof D, Hortobagyi GN. Locally advanced breast cancer: treatment guidelines with particular attention to low- and middle-income countries. Cancer 2008; 113 (8 suppl): 2314-2323.