

BREAST CANCER: RISK FACTORS AND PREVENTIVE APPROACHES

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Abstract

Breast cancer has almost reached an epidemic level as one scientist exaggerates. His point of reference is the increase in incidence over the years, which he blamed on today's lifestyles. The earlier the breast cancer is detected, the greater the chance for a successful treatment. Many factors act the risk for breast cancer. Some of these factors can be controlled or modified including what we eat, the type of chemicals in our environment and how much we exercise. Breast cancer in Nigeria is a public health problem because most patients report late, the increased mortality of breast cancer patients. Prevention involves awareness creation for early detection through Breast Self - Examination and lifestyle changes.

Introduction

Cancer is a group of diseases, which occur when cells become abnormal, and divides without control or order. Cancer is a group of diseases characterized by unregulated growth of cells (Bender. Yasko and Strohl. 1999). It can occur in persons

cases are discovered and treated early, a high proportion can be cured by the available standard therapies (Gates, 2008).

In Nigeria the word cancer is an abomination, a taboo, an evil and the end of human life. Unfortunately, very little is being done to educate the Nigerian women about what breast cancer is. It has, therefore, become necessary at this point in time, to educate and help women understand what breast cancer is all about, and how to help women with breast cancer go through this trauma. Educational messages about breast cancer will go a long way in increasing the public and professional awareness of the problem in order to improve early detection and prompt treatment of cases.

they do not reoccur. The cells in benign tumors do not invade other tissues and do not spread to other parts of the body. Benign breast tumors are not a threat to life. Malignant tumors are cancers, which invade and damage nearby tissues and organs, and can enter the bloodstream or lymphatic system. Breast cancer can spread and form secondary tumors in other parts of the body and the spread is known as metastasis. Ductal carcinoma, which begins in the lining of the ducts, is one of the different types of cancer while lobular carcinoma arises in the lobules. The chances of recovery (prognosis) and the choice of treatment depend on the stage of cancer (whether it is just in the breast or has spread to other parts of the body), the type of breast cancer, certain characteristics of the cancer cells

Breast cancer tends to be diagnosed at a much more advanced stage in developing than in developed countries. This is partly because women's health problems are down played in developing countries and partly because of a failure by women in these countries to appreciate the importance of early detection of the disease. If

Benign tumors are not cancer, they can usually be removed, and in most cases,

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things outside the body that influence health, such as air, water, food, danger, music, noise, people and stress.

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The basic approaches to cancer control are primary prevention, screening and early treatment. Primary prevention has the greatest potential but is not yet applicable against breast cancer. Treatment is frequently hampered in

developing countries by late presentation. Early diagnosis has greater prognostic importance than any therapeutic effort, however sophisticated at a late stage. Early diagnosis and screening, combined with adequate therapy, offer the most immediate hope for a reduction in breast cancer mortality (Korolchouk, 1990).

Understanding Breast Cancer Risks

A risk factor is anything that increases the chance of developing breast cancer while anything that will bring about a reduction in the risk of developing breast cancer is known as a protective factor. Some of these factors can be controlled or modified while others cannot be controlled.

Risk factors that cannot be controlled

According to Gaynor, (2008) the risk factors that cannot be controlled are:

*** Genetics**

Most inherited cases of breast cancer have been associated with two genes BRCA 1, which stands for Breast Cancer gene one, and BRCA 2, or Breast Cancer gene two. These two genes keep the breast cells growing normally and prevent any cancer cell growth. When these genes contain abnormalities, or

mutations, they are associated with an increased breast cancer risk.

* **Age**

Just as with many other diseases, the risk of getting breast cancer goes up, as one gets older. The average risk of getting breast cancer over one's lifetime is 1 in 7 although at different category of age. Accordingly Block, (2008) classified the different levels of risk as follows: From birth to age 39, 1 in 229, from 40 to 59, it is 1 in 24 and from 60 to 79, it is 1 in 13

* **Family History**

Family history of breast cancer may constitute a high risk of developing breast cancer in an individual (Gaynor, 2008).

* **Personal History**

Individuals who have been diagnosed with breast cancer and treat before have a higher risk of developing it again. The risk might be low or high depending on other factors (Brandt, 2008).

* **Menstrual History**

Decay, Welham and Khan (1989) stated that early menarche and late menopause, or both and more exposure to oestrogen and other hormones

produced by the ovaries are recognized risk factors for the development of breast cancer. Women who had their first menses before the age of 12 years or menopause after 55 years have a higher risk of breast cancer.

* **Race**

According to Gates (2008), breast cancer in the United States occur more in white women than the Latin American, Asian or African America women. But in women 40 years and younger, African American women have the highest risk.

* **Breast Density**

"Dense" breast. which contain more glandular and connective tissue, are more likely to be diagnosed with breast cancer than women whose breasts are less dense. Oestrogen makes the breast tissue denser, so the connection between breast density and breast cancer may be related to higher levels of oestrogen in the body (Frazier, 2008).

* **Late Pregnancy or No Pregnancy**

Women who had their first full-term pregnancy after age 30 and those who never had a full-term pregnancy are at higher risks for breast cancer than those who gave birth earlier in life. A full-term

pregnancy, which stops the menstrual cycle for nine months, seems to offer protection against breast cancer (Frazier, 2008).

*** Certain Breast Changes**

Gates (2008) stated that normal breast cells can sometimes get overexcited and start to misbehave. These changes can show up as a lump, thickness, or calcifications on a mammogram. An uncontrolled growth of the breast cells in the lobule (the part of the breast that secretes milk) is called lobular carcinoma in situ or LCIS.

Risk factors that can be controlled

*** Radiation Therapy**

According to Gaynor (2008), any individual who receives radiation therapy to the chest before the age of 30 years, particularly during adolescence, have a higher risk of developing breast cancer. This has been seen in young women receiving radiation to treat Hodgkin's diseases.

*** Exposure to diethylstilbestrol (DES)**

DES is an oestrogen - like hormone used in the past to help women prevent abortion. This drug may increase the risk of breast cancer in women who used it

and in their daughters who were also exposed to it (Gates, 2008).

*** Smoking Habits**

Research shows that smoking causes many diseases, and it is associated with an increased risk of developing breast cancer (WHO, 2005). Smoking can also increase complications from breast cancer treatment, It can worsen radiation damage to the lung, cause difficulty in healing after surgery, and increase risk of blood clots with hormonal therapy.

*** Obesity**

Overweight women have an increased risk of getting breast cancer after menopause and/or increased risk of reoccurrence. There are probably several reasons that being overweight is associated with an increased risk of breast cancer. Extra fat cells make extra oestrogen that might stimulate breast cell growth and overweight women tend to exercise less and eat higher fat foods (WHO, 2005).

*** Cholesterol Intake**

Some researchers believe that eating too much cholesterol and other facts are risk factors for cancer, and such studies show that eating a lot of red and/or processed meats is associated with a

higher risk of breast cancer (Weil, 2008, Weiss, 2008 & Grana, 2008).

*** Alcohol Intake**

When women drink two to five drinks a day, the risk of breast cancer jumps by 41 percent, and even one drink can raise breast cancer risk to 9 percent (Weil, 2008).

PREVENTION

According to Dayrit (1999), there are breast cancer prevention tips every woman should know. There are about eight strategies to reduce the risk of breast cancer, which are as follows:

*** Add anti-cancer fats to your diet**

According to Weil (2008), the most recent studies from Sweden, Italy, Greece and Spain attributed daily consumption of a table spoon of olive oil with as much as 50 percent reduction in breast risk. Omega-3 fatty acids in salmon and sardines are also known as risk reducers. The bad fats are those found in margarine, snacks foods and baked foods, regular intake increases the risk by 40 percent. Corn and sunflower oils are likewise linked to increased breast cancer risk. Read all labels carefully and reject all products

made with partially hydrogenated oils of any kind.

*** Fruits and Vegetables**

Apart from being high in fiber, fruits and vegetables are natural sources of antioxidants that protect cells from damage derived from carcinogens. Cabbage also has indoles that lower certain types of oestrogen. To cover a full range of good phytochemical, fruit intake should be balanced between red, green, yellow and orange products (Weil. 2008).

*** Exercise**

Exercise tends to lengthen the time between menstrual periods, thereby reducing oestrogen exposure. Exercise also boosts immune system activity and helps combat obesity, a risk factor for breast cancer. It reduces stress and tension, which are linked to cancer. Weil (2008) recommended 45 minutes walks five days a week. For extremely sedentary individuals, it is recommended to build up slowly from 10 - 15 minutes daily walks until the 45 minutes is reached. Exert some effort to get your heart pumping to its desired level but not too much that you cannot talk while brisk walking.

*** Drink less and smoke not**

Women who are at higher risk for breast cancer should avoid alcohol altogether.

*** Soy intake**

The isoflavones in soy foods can prevent breast cancer. Isoflavones are plant-derived oestrogen that block action of stronger oestrogen and interfere with enzymes involved with cancer growth.

*** Antioxidant supplement**

It has been found out that vitamin E can reduce the risk of breast cancer (Weil, 2008). Antioxidants help the body to neutralize carcinogens and protect its ability to recognize and eliminate malignant cells. At least 10 IU of vitamin E and 1000mg of vitamin C should be taken daily. Fruits and vegetables are good source of these Vitamins.

*** Reduce exposure to foreign oestrogen**

According to Weil (2008), foreign oestrogen from meat, poultry and dairy products can expose individuals to cancer of the breast. Contaminated food, unclean water and the polluted environment also complicate matters. As much as possible reduce exposure to foreign oestrogen.

Approaches to Control

The basic approaches to cancer control are primary prevention, screening and treatment. Primary prevention has the greatest potential but not yet applicable against breast cancer (Frazier, 2008). Screening may involve physical examination of the breasts, mammography and breast self-examination (BSE). In women over 40, breast self-examination can contribute to early detection of cancer. It is important that every woman should learn the technique and develop the habit of examining her breast at least once a month in order to detect any abnormality and seek for immediate assistance.

Breast self-examination should be done one week after menstruation because the tenderness and swelling associated with pre-menstrual period would have subsided. For menopausal women, breast examination should be done once a month, preferably the first or last day of each month. During examination a woman should note the following:

- . The size and shape of the breast;
- . The condition of the skin of the breast;
- . The condition of the nipples: whether flattened or out of position;

- . Lump in the breast i.e. the consistency of the breast whether lumpy or smooth.
- . Abnormal discharge from the nipples.

Frazier (2008) suggested three basic positions that could be assumed to perform breast self - examination as follows:

- . In the bathroom while having a bath or shower.
- . Standing in front of the mirror.
- . Lying on her back on the bed.

The Techniques for breast self-examination is:

- * Support the back of the head with one hand:
- * Place the palm of the other hand flat on the breast;
- * Starting from the outer edge of the breast to the nipple move the flat part of the fingers in a small circle slowly around the breast
- * Press the breast tissue against the wall of the chest to feel for any lump, hard knot or thickening;
- * Move to the nipple, and gently squeeze the nipple to see if there is any discharge that is watery, bloody or pus-like;
- * Repeat same procedure on the other breast until the two is

completely examined making sure that the entire breast is examined including the armpit (Frazier. 2008).

If abnormal findings are detected or if in doubt, report immediately to a health worker for confirmation, reassurance, investigation and early commencement of treatment if need be. Regular inspection of the breast will enable a woman to get used to the routine procedure, the size and shape of the breast, thus allowing for any breast abnormality to be easily detected.

Doubts have been expressed about the acceptability of breast self-examination in some cultures because of taboos about touching breasts. There is need for public awareness about the importance of breast cancer and the role of breast self-examination in early detection. Remember a stitch in time saves nine.

Conclusion

Breast cancer, a significant cause of mortality, can often be tackled effectively if detected at an early stage. This may be achieved by adopting some healthy lifestyles like regular exercise, maintaining a healthy weight, avoidance of alcohol and cigarette smoking. Prevention of breast cancer in our

environment involves early detection and this will call for massive and extensive breast cancer awareness programme. There is need to mount a Breast Cancer Awareness Programme in the States to encourage women to carry out breast self-examination at least once monthly. If they discover a breast lump to report to the doctor for at least a biopsy to

www.breastcancer.org/risk/understanding.jsp.

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