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BREAST SELF EXAMINATION - A NEED OF WOMEN AND MEN

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Abstract

Breast self-examination is the important primitive technique to identify abnormal breast and parenchyma tissue of breast and nipple. The technique remains user friendly and is similar in both the gender, includes the principle of observation and palpation. A expert in breast self examination will further guide for early intervention and prevent of mammary gland related diseases and complications. The principles of breast self-examination remain a ideal technique of examining once breast in developing countries. Hence the present review article give a brief comprehensive information of breast self-examination in men and women.

Keywords: Breast self-examination, parenchyma tissue, men and women.

Introduction

Breast are the parenchyma tissues covers second to third ribs, transversely from the sternum to the mid axilla lines and inferiorly to the infra-mammary folds. The tail of the Spence projects in to axilla known as peninsula of breast tissue. The breast is enclosed

with superficial layer below dermis (skin) and deep layer pectoralis major muscle fascia. The functional breast constitute lobes and lobules of tubule alveolar epithelial glands, supported by adipose tissue. The lobe connect into ducts and sinuses which terminate as nipple areolar complex. The suspensory ligaments of Cooper are band of connective tissues anchors the breast tissue overlying dermis.

The breast development begins in puberty, due to hormonal changes causes breast enlargement by epithelial proliferation an increase adipose deposition. During pregnancy, breast lactates, after weaning the breast returns to pre-gestational size. Further menopause results in breast atrophy, decrease breast volume, relaxation of Cooper ligaments, resulting diminish suspension and breast ptosis. The understanding of breast anatomical variability among individuals, age group like adolescents, menstruating, and gestational mothers signifies the importance of breast examination. Breast examination can be done by two forms Clinical breast examination (Breast examined by medical personnel) and Breast self examination (Examining breast by oneself).

Breast self-examination is simple, non costly, non-interventional and universally approachable means of rightly identifying early stage breast abnormalities. Breast self-examination benefits low resource countries in early screening of breast.

Breast self examination is a self screening method used to detect early breast abnormalities for lumps, distortions or swelling and some types of breast cancers, however it is not substitute for screening method such as mammogram and magnetic resonating image.

Milestones in breast self examination

- In 1930, breast self examination was done for suspicious lumps of breast so that treatment can be started at earliest.¹
- In 1950 and 1960, film on breast self examination was visualized and demonstrated for millions of American women by the American Cancer Society and the National Cancer Institute.¹

- In 1970, women were instructed to do breast self examination as routine test even in absence of lumps or breast tenderness.²

Purpose of breast self assessment

- Breast self examination helps to determine the normal or abnormal breast parenchyma tissues.
- Breast self examination helps in indication for surgical intervention
- Breast self examination help in reexamination of breast at different time of menstrual period.
- Breast self examination helps to early identify the need of mammogram or ultrasound or magnetic resonating image.

Contraindication of breast self examination

- There is no absolute contraindication for structural and formal breast self examination
- Absence of mortality benefits
- Occurrence of unfavorable outcomes of regular routine breast self examination practice.

Complications of breast self examination

- Complications are associated with breast self-examination are principally secondary to false-positive findings resulting in
- Increased benign lesion identification
- Unnecessary imaging,
- Biopsies, and
- Anxiety provoked by a possible cancer diagnosis.

Limitation of breast self examination

The meta-analysis study conducted by Kusters et al stated that no benefits were screened by breast self examination instead the increase in number of benign lesions identified and biopsies performed and recommended no to breast self examination.³

Breast self examination do not reduce the mortality from breast cancer, a study conducted by Thomas DB et al on education of Chinese factory working women in two groups, one group taught breast self examination and told to practice monthly examination and other group no education on breast self examination. The educated women group detected more benign and early stage of breast cancer. However equal number of women died from breast cancer in each group.⁴

Breast self examination is no longer routinely recommended, it will be appropriate for high risk women, and if generally practiced as universal screening approach it lead to low risk, or no risk women harmed by unnecessary follow up and procedures.

Breast self examination learning increases level of depression, anxiety, worrying about breast cancer. Women perform more breast self examination with history of breast cancer and at high risk BRCA mutation.⁵

Recommended Screening test for breast

- Breast self examination age 20 and older perform once a month
- Clinical breast examination age 20 to 40 years every three years and more than 40 years yearly
- Mammogram and magnetic resonating image age 40 to 69 and older every one to two years

The Seven P's principles of breast self examination

1. **Position:** the breast examination is done by seeing breast image in mirror at front side positions, later placing and removing pillow under shoulder in sleeping position.

2. **Perimeter:** the full breast is examined the parenchyma, areola, nipple and arm pit.
3. **Palpation:** using pads of fingers continuously without lifting all over breast.
4. **Pressure:** initially by light pressure, then moderate pressure and later deep pressure to notice pain, lumps and tenderness.
5. **Pattern:** vertical strip, pie wedge, circular patterns any one or all can be used.
6. **Practice:** Practice the breast self-exam and become familiar with the feel of the breast tissue, so to recognize changes.
7. **Plan:** Know what to do if suspect a change in breast tissue. Know family history of breast cancer. Does mammography periodically as advised by health personnel.



Source of the image¹¹

Breast self-examination in men

During puberty, if boys testosterone fails to secrete then oestrogen can develop breast. Many teenage boys have some degree of breast enlargement, the vast majority of breast lumps are caused by a condition called gynaecomastia, this may be cured as boys get

older and on stabilizing hormone levels. Gynecomastia is a common non-cancerous condition where male breast tissue becomes enlarged.

Men who have gynecomastia, which is an enlargement of the breast caused by a hormone imbalance, should consider getting a mammogram every year, starting ten years before the earliest known breast cancer in a male family member or at the age of 50 years.

Technique of breast examination in men

- ◆ Observe both nipples and squeeze for discharge.
- ◆ Look for puckering, dimpling change in skin texture, shape, size and contour of breast.
- ◆ Examine for lump, a lump that feels like a hard knot or a thickening in the breast or under the arm.
- ◆ Any new irregularity on the skin or nipple, such as redness, scariness, puckering, or a discharge from the nipple.

Technique of breast self examination in females

Preparation for breast self examination

Breast Self-Examination practice demands optimal learning of procedure, which is correct, repeatable and relaxed. Changes in breast anatomy is physiological in time of menstrual cycle, hence screening should occur at the same time monthly, ideally at the end of the women menses.

If the woman is amenorrheic, the examination should proceed on the same selected day each month.⁶ A safe, familiar environment, free from distractions and interruptions, should be chosen to ensure a relaxed, secure experience.

Performance of Breast Self Examination

The steps of breast self-examination are:

- ◆ Expose the top and stand in front of mirror.
- ◆ Hands to be placed on hips
- ◆ Observe for signs of dimpling, swelling, soreness, or redness in all parts of breasts in the mirror.
- ◆ Repeat the observation for dimple, swelling, soreness, redness with arms raised above head.
- ◆ While still standing, palpate breasts with fingers, feeling for lumps. Try to use a larger area of fingers rather than prodding. Feel both for the area just beneath the skin and for the tissue deeper within. Examine the entire breast all over.
- ◆ Divide the breast into quadrants and palpate quadrants and armpit carefully.
- ◆ Repeat entire palpation while lying down.
- ◆ Examine nipples and the area below nipples. Squeeze nipple gently for any discharge.

For premenopausal women, Breast Self Examination is best done at the same stage of their period every month to minimize changes due to the menstrual cycle or at end of last period.

Older, menopausal women should do Breast Self Examination once a month, perhaps on the first or last day of every month.

All though most breast cancers are detected by women, Breast Self Examination should be combined with an annual examination by a physician and nurse for better chances of detection. About eight in ten lumps discovered by Breast Self Examination are harmless. Often women can miss breast lump as it could be non tender hence learning breast self examination from expert is essential or to examine breast by an expert.

Conclusion

The World Health Organization, the Canadian Task Force on Preventive Health Care, and many other scientific organizations recommend against the use of breast self-examinations.⁷ Also, the Royal Australian College of General Practitioners states that teaching women to perform breast self-examination is no longer recommended.⁸ In the United States, however there is no consensus among organizations related to breast self-

examination as the American College of Obstetrics and Gynecology, and the American Medical Association recommend monthly breast self-examination while the American Cancer Society, the National Cancer Institute, the United State Preventative Services Task Force, and the National Comprehensive Cancer Network neither recommend nor discourage breast self-examination.^{9,10} Breast self examination is not a replacement for more trustworthy techniques like mammography or an examination using Magnetic Resonating Image, yet remains as ideal technique to detect defects in the breast in both men and women.

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