

An Analytical study on Male Mammography

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Abstract

Background: Mammography of male breast accounts for less than 1.5% of mammographic examinations done in breast imaging centers. In females the awareness of breast cancer is very high when compare to males. Females will undergo periodical screening very frequently through, mammography or clinical examination. The most common presenting symptoms and signs that led to a request for mammogram in these men include an enlargement of breast, a palpable lump, and breast tenderness (1). Aim and study: To know the breast lesions in males through mammography. **Subjects and Methods:** we have examined breast of 50 Males with the help of mammography. **Results:** Out of 50 patients. Gynaecomastia is seen in 18 patients. Breast cancer is seen in 4 patients. **Conclusion:** Routine mammography is very much useful in females for screening of breast cancer. In males also it is useful in ruling out different breast lesions like Gynaecomastia, breast cancer.

Keywords: Gynaecomastia, Male mammography, Breast cancer, Mastitis.

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Introduction

Mammography in man usually done to evaluate Gynaecomastia and therefore reports of mammography findings in breast cancer in men are few. The frequency of breast cancers in men is less than 0.1% of the frequency of breast cancers in woman and breast cancer represents fewer than 0.17% of all cancers in men.^[2] In the United States wide spread screening over last several decades has not been accompanied by a reduction in incidence of metastatic breast cancer despite a large increase in early stage disease, suggesting a substantial amount of over diagnosis at the population level.^[3] MRI Screening may be more suited than mammography in women at high risk due to genetic predisposition or in women with very dense breast tissue but specificity may be lower.^[4]

Breast cancer is a malignant proliferation of epithelial cells lining the ducts or lobules of breast. In the year 2014 about 180,000 cases of invasive breast cancer and 40,000 death has occur in the united states. And 2000 men were diagnosed with breast cancer.^[5]

Subjects and Methods

We have examined 50 breasts clinically and mammography was also done. The age group is between 20 years and 70years. Medical charts were reviewed to determine the patients age, risk factor for breast cancer and signs and symptoms. Mammography reports were reviewed to determine the mammography pattern of breast cancer, location of tumor and presence or absence of

Gynaecomastia.^[6]

Results

Mammography was done to 50 males patients. Most common age group is 30 years and 50 years. The most common presenting symptoms are unilateral breast enlargement.

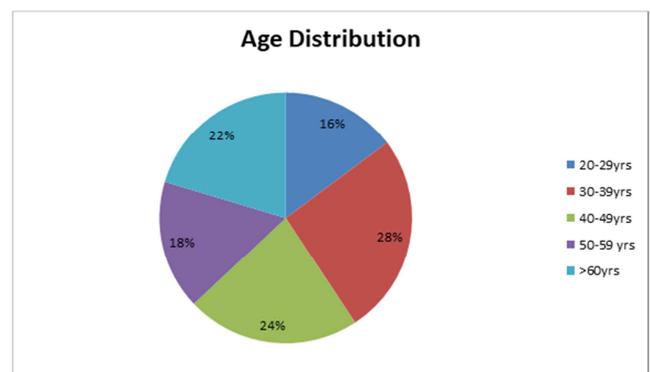


Figure 1: Age distribution

Serial no.	Breast lesion	No. of patients	Percentage
1	Gynaecomastia	17	35.5%
2	Nonspecific lesions	19	38%
3	Breast cancer	2	4%
4	Adenoma	3	6%
5	Mastitis	5	10%
6	Others	4	8%

The most common age group involved is 30-50years the common abnormalities are Gynaecomastia 17 is in 17. (35.5%) non-specific abnormalities are 19 in no. (38%). Breast cancer is seen in 2 patients (4%) Adenoma of breast is seen in 3 patients 6% and mastitis in 5 patients (8%) and misselaneous lesion in 4 patients (8%).

The most common symptoms are unilatarl enlargement of breast, pain in the breast and discharge.

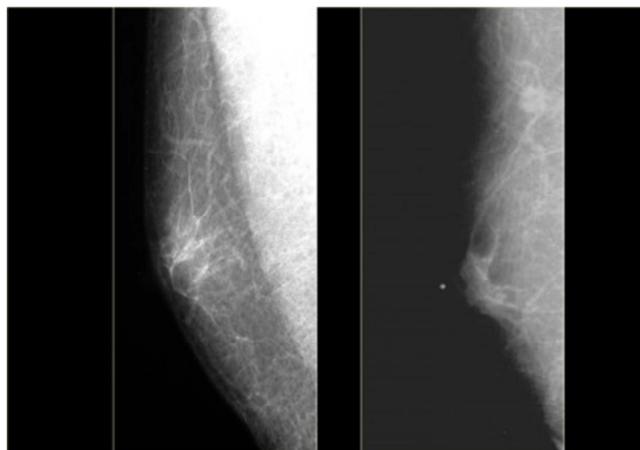


Figure 2(a): Normal male mammography.

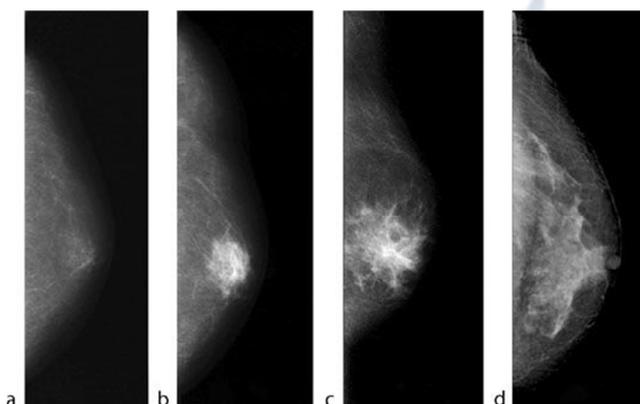


Figure 2(b): Mammogram of gynaecomastia in male

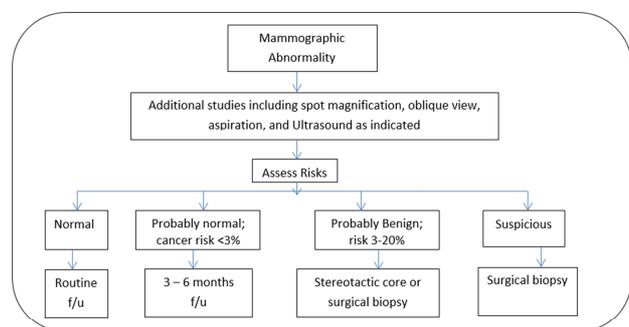


Figure 3: Risk Profile.

Discussion

Breast cancer is a malignant proliferation of epithelial cell lining the ducts or lobules of breast. Human breast cancer is a clonal disease, a single transformed cell the product of a

series of somatic or germline mutations.^[7]

Breast cancer is a hormone dependent disease. Women without functioning ovaries who never receive oestrogen replacement therapy do not develop breast cancer.^[8]

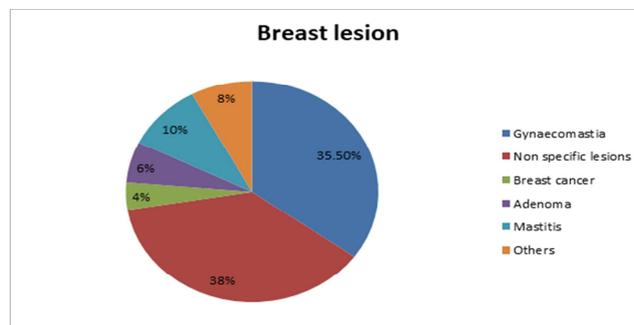


Figure 4: lesion in Breast

Breast cancer is most commonly seen in middle aged or older aged man but it is very rare in males (0.1%) when compare to females. The female to male ratio is about 150:1. The 3 factors menarche, age of first full term pregnancy, and menopause can account for 70-80% of variation in breast cancer frequency in different countries.

The standard mammographic views, craniocaudal and medio lateral oblique of each breast are routinely performed. In man with uni lateral breast enlargemnet the contra lateral breast may be too small for proper positioning.^[8,9]

Diagnostic mammography should not be confused with screening mammography which is performed after a palpable abnormality has been detected. Diagnostic mammography in aimed at evaluating the rest of the breast before biopsy is performed.^[10] Calcifications that would be accepted as beign in woman can indicate malignant disease in men.^[11]

If a non-palpable mammographic lesion has a low index of suspicion, mammographic follow up in 3-6 months is reasonable.

Meta-analysis examining outcomes from every randomized trial of mammography conclusively shows a 25-30% reduction in the chance of dying from breast cancer with annual screening after age 50years.^[12]

Bather mammographic technology including digitalized mammography, routine use of magnified views, and greater skill in mammographic interpretation, combined with newer diagnostic techniques (MRI and positron emission tomography). May make it possible to identify breast cancer even more reliable and easier.^[13]

Mammography is the most reliable means of detecting breast cancer before a mass can be palpated. Most slowly growing cancers can be identified by Mammography at least 2yrs before reaching a size detectable by palpation.^[14]

The sensitivity of mammography varies from approximately 60% to 90%. This sensitivity depends on several factors, including, age, breast density, tumor size location & mammographic appearance.

Conclusion

In males breast cancer is very rare. Mammography is very much useful as screening method in decreasing the mortality and morbidity. It is useful in detecting other breast lesions like adenoma, Gynaecomastia and mastitis and some calcified lesions.

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