

CYSTIC LESIONS OF THE BREAST: A STUDY OF FIFTY CASES

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ABSTRACT: OBJECTIVES: To study the different types of breast cysts and their management. **METHODS:** Fifty consecutive cases of palpable cystic lesions of the breast were studied over a period of 22 months. **RESULTS:** The majority of the cases (64 %) were simple cysts. Maximum number of patients (46%) were in the age range of 41-50 years. Among the simple cysts 21 were treated with single aspiration and 8 required two aspirations, the remaining 3 cysts had to be excised. Among the galactoceles, only two could be treated by aspiration alone, the remaining three had to be excised as they could not be aspirated. Both the hematomas were drained. The cases of breast tuberculosis underwent anti tubercular chemotherapy. **CONCLUSION:** Breasts cysts are usually benign though some radiologically complex masses may be malignant. The diagnosis of tuberculosis should be kept in mind in those areas where the disease is endemic.

KEYWORDS: Breast cysts, simple, complicated, complex, tuberculosis.

INTRODUCTION: Cystic lesions of the breast are often clinically palpable or detected during ultrasonography. Palpable breast cysts are found in 1 out of every 14 women.¹ Cystic masses of the breast can be simple, complicated or complex; each having its own radiological criteria.² Our study includes those cystic lesions of the breast which were clinically palpable.

METHODS: Fifty consecutive cases of palpable cystic lesions of the breast were studied over a period of 22 months. Only those cases in which the lump was clinically palpable were included in the study. Patients with breast abscess and those in whom the cyst was not clinically palpable (but radiologically detected) were excluded from the study. All patients were clinically followed up for a period of at least three months.

RESULTS: Fifty consecutive cases of palpable cystic lesions of the breast were studied over a period of 22 months. The majority of the cases (64 %) were simple cysts. The different types of cysts encountered are enlisted in Table 1.

Type	Number
Simple	32
Galactocele	5
Hematoma	2
Tuberculosis	7
Hydatid cyst	2
Intracystic papilloma	1
Intracystic papillary carcinoma	1

TABLE 1

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Maximum number of patients (46%) were in the age range of 41-50 years (Table 2).

Age	Number of patients
21-30	7
31-40	18
41-50	23
51-60	2
TABLE 2	

Among the simple cysts 21 were treated with single aspiration and 8 required two aspirations, The remaining 3 cysts had to be excised since they recurred even after three aspirations. Among the galactoceles, only two could be treated by aspiration alone, the remaining three had to be excised as they could not be aspirated.

Both the hematomas were drained. The cases of breast tuberculosis underwent antitubercular chemotherapy. The case of intracystic papillary carcinoma (FIG. 1) underwent modified radical mastectomy.

DISCUSSION: Cystic lesions of the breast may present in women of any age but are more common between 30 and 50 years of age. In our series the maximum number of cases (46%) were between 41-50 years. Regarding etiology, oral contraceptive use was noted in only 27% of the women in some time of their life. As tuberculosis is very common in this part of the world, cystic lesions of tubercular etiology was seen in 14% of the patients. Hydatid cyst of the breast which is a very rare finding was detected in 2 (4%) patients.

Radiologically, cysts can be classified into three types, simple cysts, complicated cysts and complex cysts. Simple cysts are the most common and result from dilatation and effacement of the terminal duct lobular unit. Mammographic imaging typically shows a circumscribed round or oval mass.² According to the sonographic criteria set forth by Stavros,^{3,4} simple cysts are anechoic with a thin echogenic capsule, increased through-transmission and thin edge shadows.

A complicated cyst meets all the criteria of a simple cyst except that it contains low-level internal echoes or fluid–fluid or fluid–debris levels that can shift with changes in the patient's position. The causes of internal echoes within an otherwise simple cyst include cell debris, protein, cholesterol, blood, WBCs, and epithelial cells.²

Complex cysts contain cystic and solid components and are associated with a variety of benign, atypical, and malignant pathologic diagnoses.⁵ Complex cystic breast masses have a substantial chance of being malignant; malignancy was reported in 23%⁶ and 31%⁷ of cases in two series. Complex breast cysts are defined as cysts with thick walls, thick septa, intracystic masses, or other discrete solid components.^{5,8}

By using criteria adapted from Berg et al,^{5,6} we can categorize complex cystic breast masses into four classes on the basis of their US features: Type 1 masses have a thick outer wall, thick internal septa, or both; type 2 masses contain one or more intracystic masses; type 3 masses contain mixed cystic and solid components and are at least 50% cystic; and type 4 masses are predominantly (at least 50%) solid with eccentric cystic foci. Complex cystic breast masses may be due to a wide range of pathologic entities, including benign, atypical (high-risk), and malignant lesions.

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Common benign diagnoses of complex cystic breast masses include fibrocystic changes, intraductal or intracystic papilloma without atypia, and fibroadenoma.^{5, 6} Common atypical pathologic findings in complex cystic breast masses include atypical ductal hyperplasia and atypical papilloma. The most common malignancies among complex cystic masses include DCIS and infiltrating ductal carcinoma. Infiltrating lobular carcinoma also may have a complex cystic appearance.

Diagnosis of breast cysts are by ultrasonography, mammography and FNAC. At ultrasonography, breast cysts are categorized as simple, complicated, or complex. In patients with complex cystic masses, mammography may help to characterize the mass and depict associated micro calcifications and show suspicious lesions. If a lesion appears fat-containing at mammography, it represents a benign entity such as an oil cyst or galactocele, and biopsy can be avoided. For lesions that are proved malignant at biopsy, mammography may provide important information about the extent of disease and thus may influence subsequent surgical management.^{2, 5, 9}

A palpable mass can be confirmed to be a cyst by direct aspiration or ultrasonography. Cyst fluid can be straw coloured, opaque or dark green and may contain debris. Given the low risk for malignancy within a cyst, if the mass resolves following aspiration and the cyst contents are not grossly bloody, the fluid does not need to be sent for cytologic analysis.

If the cyst recurs more than twice or if the aspirate is bloody FNA biopsy should be performed to evaluate the solid elements. Surgical removal of a cyst is usually not indicated but may be required if the cyst recurs multiple times, or based on the needle biopsy results. Galactoceles can be treated by aspiration. Surgery is reserved for those that cannot be aspirated or are infected.¹ In case of tuberculosis; anti-tubercular chemotherapy is the initial management, surgery being reserved for removal of residual masses.

To conclude, breast cysts are usually benign though some radiologically complex masses may be malignant. The diagnosis of tuberculosis should be kept in mind in those areas where the disease is endemic.

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Fig. 1: Intracystic Papillary Carcinoma

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