SONOGRAPHIC FINDINGS OF FIBROADENOMATOID HYPERPLASIA OF BREAST IN 19 PATIENTS

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Purpose: To evaluate the sonographic appearance of fibroadenomatoid hyperplasia of the breast that can differentiate to other masses in breast.

Materials & Methods: We retrospectively reviewed sonographic findings including size, shape, margin, internal echo strength, internal echogeneity, thickness of boundary echo, pattern of posterior echo, and lateral edge shadowing in 19 patients with pathologically proven fibroadenomatoid hyperplasia. The mean age of patients was 36.3 years (range, 24-47 years).

Results: The mean size of the masses was 13mm (range, 4-26 mm). Common sonographic findings were similar to appearances of benign mass such as regular shape (84%), smooth border (58%), isoechoic internal echo strength (36%), homogeneous internal echogeneity (74%), thin boundary echo (58%), posterior sonic enhancement (53%), and lateral edge shadowing (58%). But some of them showed malignant appearance, such as irregular shape (15%), hypoechoic internal echo strength (53%), heterogeneous internal echogeneity (26%), thick boundary echo (42%), posterior acoustic shadowing (15%).

Conclusion: Common sonographic findings of fibroadenomatoid hyperplasia were benign, but some of them showed the features of malignancy including irregular shape and border, hypoechoogenicity, and posterior acoustic shadowing. So, when the malignant-appearing mass is detected in relatively young patients on ultrasonography, the possibility of fibroadenomatoid hyperplasia must be included.
CORRELATION OF SONOGRAPHIC AND PATHOLOGIC FINDINGS IN THE FIBROCYSTIC DISEASE OF THE BREAST

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Purpose: To correlate the pathologic findings of mass-mimicking fibrocystic diseases in breast on sonogram and to find the cause of fibroadenoma-like appearance of fibrocystic diseases.

Materials and Methods: Total 63 pathologic-proven fibrocystic disease in 57 patients are retrospectively evaluated. On sonogram, the lesions were divided into solid mass-like and non-solid lesions. We reanalyzed the margin and echopatterns of solid-mass-like lesions and correlated with pathologic findings. The iso-echopattern was defined the same to fat echogenicity. Pathologic analysis was focused on stromal pattern and presence of fibroadenomatous change. Statistical analysis was performed on the correlation of sonographic and pathologic findings by Student t-test.

Results: Of the 63 fibrocystic disease, the solid mass-like lesions in 46 cases (73%), non-solid in 17 cases (27%) were noted on sonogram. Among the 46 mass-like lesions, we found well-defined margin in 33 cases (72%), ill-defined margin in 13 cases (28%), and hypoechoic echopattern in 27 cases (59%), isoechoic pattern in 19 cases (41%). On pathologic analysis, fibrotic stroma was shown in 35 cases, mixed in 25 and normal in 3. Of the 46 mass-mimicking lesions, the pathologic findings were fibrous stroma in 26 cases (56%), fibroadenomatous changes in 23 cases (50%), cystic change in 17 cases (35%), and ductectasia in 10 cases (22%). Solid mass showed more fibroadenomatous change compared with non-solid mass (p=0.001).

Conclusion: There was variable pathologic findings of fibrocystic disease of breast. However, we concluded that the fibroadenomatous changes on pathologic analysis show fibroadenoma-like findings on sonograms.
CONCENTRATED FORM OF BREAST CYSTS
- ULTRASONOGRAPHIC CONSIDERATION -

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Purpose: Lots of benign small breast lesions are detected by high-resolution real-time breast ultrasonography. And their diagnosis is important to discriminate them from early breast cancer. As one of such lesions, concentrated form of cysts (CC) present themselves as solid or solid in cystic pattern far away from typical cystic pattern. Study on their ultrasonographic findings will be reported.

Materials and Methods: Breast lesions are diagnosed as CC, if the mass disappears or decreases in size by puncture and aspiration, the punctum looks like tooth-paste or gruel and its cytology denies malignancy. For 6 years since 1993 until 1998, 156 breast lesions were diagnosed as CC in 131 women.

Results: Most of CC were non-palpable and their size ranged from 2 to 15 mm, averaged 5.7 mm. Pre-puncture ultrasonic diagnosis were solid or solid in cystic tumor in 86, cyst including CC in 49, intraductal or intracystic papilloma in 11, fibroadenoma in 7 and cancer in 2. Cytology was class I in 31, II in 51, III in 3, and no cell was acquired in 69.

Conclusion: Ultrasonic diagnosis of CC was not easy and fine needle aspiration cytology should be actively used for its diagnosis.
Purpose: To demonstrate the radiologic findings and clinical features of non-tuberculous granulomatous mastitis that is very rare benign lesion of breast.

Materials and Methods: We analyzed six cases of non-tuberculous granulomatous mastitis between 1997 and 1999. All cases were pathologically proven. The mean age was 34.5 years (range, 30-40 years). Patients were examined mammography (n=6) and ultrasound (n=5). Clinical history, mammographic feature and US features were analyzed.

Results: Pathologic diagnosis was five cases of idiopathic granulomatous mastitis and one case of cancer related granulomatous mastitis. Clinically all patients were relatively young parous women with palpable mass for 1-3 months (mean 2mon). Mammographic findings were mainly diffuse increased density in dense breast pattern that could not be differentiated from breast malignancy. US findings were mainly irregular shaped, hypoechoic and heterogeneous mass near subareolar area. Two cases were bilateral. Before histologic confirm, radiologic diagnoses were three breast abscesses and three breast cancers. Treatments were mastectomy (n=3), excision (n=2), incision and drainage (n=1). Two cases were recurred within 1year.

Conclusion: Clinical information and US findings were useful to differentiate non-tuberculous granulomatous mastitis from tuberculous granulomatous mastitis and malignancy, but histologic confirmation is needed.
A STUDY OF ULTRASONOGRAPHY AND MAMMOGRAPHY IN GYNECOMASTIA

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Purpose: To evaluate correlation of the image findings between ultrasonography (US) and mammography (MM) of gynecomastia.

Materials and Methods: We retrospectively reviewed age distribution, causative factors, laterality in 61 patients, and evaluated correlation between US and MM in 44 gynecomastia of 25 patients.

Results: Gynecomastia was most common in sixties (44%, 27/61). The etiology of gynecomastia was idiopathic in 33, systemic disease in 14, drugs in 7, peripubertal in 5, and male hormonal deficiency in 2 patients. Gynecomastia was symmetrical in 15 including 4 pseudogynecomastia, and asymmetrical with 16 on the right and 14 on the left. Unilateral gynecomastia was present in 10 on the left and in 6 on the right. The echo pattern demonstrated hyperechoic in 6 and hypoechoic in 6, and isoechoic pattern in 5 on US out of 17 nodular types on MM. The echo pattern was hyperechoic in all 4 diffuse glandular types, and hyperechoic in 12 out of 14 mammographic dendritic types and hypoechoic in 9 pseudogynecomastia. The smooth echo margin was found in 10 of mammographic nodular types, and in 5 of dendritic types. The indefinite echo margin was found in 9 with dendritic types, and in 7 with nodular types, and in 4 with all diffuse glandular types on MM.

Conclusion: US and MM are very useful in detection of gynecomastia. The gynecomastia that are typical and palpable, nonindurated, central, subareolar mass does not require biopsy unless other strong clinical indications are present.
FIBROADENOMA IN BREAST: CORRELATION BETWEEN ULTRASONOGRAPHIC AND HISTOPATHOLOGIC FINDINGS

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Purpose: To determine the presence of correlation between the sonographic findings and histopathologic types of fibroadenomas in the breast.

Materials and Methods: Forty-one biopsy-proven fibroadenomas were retrospectively evaluated the presence of correlation between ultrasonographic findings and histopathologic findings. On ultrasonogram, fibroadenomas were analyzed for internal echotexture and presence of posterior enhancement. On histopahtologic examination, the fibroadenomas were divided into sclerotic, myxoid, glandular, and mixed types by stromal cellular pattern. The degree of stromal cellularity and fibrosis were also graded into mild to severe. The analysis of the ultrasonogram and histopathology was performed by each two radiologic and histopathologic specialty of breast.

Results: On ultrasonogram, hypoechoic echotexture was shown in 16 cases and isoechoic in 25. The histopathologic stromal types of fibroadenomas were sclerotic in 16, myxoid in 13, glandular and mixed in each 6 cases. The hypoechoic internal echotexture was noted in the majority of the sclerotic type (68.8%) but isoechoic echotexture was seen mainly in myxoid type (84.6%) and in glandular type (83.3%). In 16 hypoechoic masses, the stromal cellularity was mild in 12 cases (75%) and severe in 4 (25%), but the fibrosis was mild in 3 (18.7%) and severe in 13 (81.3%). About posterior enhancement, the most of myxoid type (77%) showed positive posterior enhancement, but the most of sclerotic type (87.5%) showed negative posterior enhancement. Of the 22 cases of negative posterior enhancement, severe fibrosis was seen in 18 cases (81.2%).

Conclusion: We concluded that the ultrasonographic findings of internal echotexture and presence of posterior enhancement of fibroadenomas in breast are well correlated with histopathologic stromal cellular types and degree of stromal cellularity and fibrosis.