



Multiple Fibroadenomas in Single Breast

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Abstract:

Fibroadenomas usually present as single lesion in breast and there are few reports in literature of multiple fibroadenomas in both breasts. Multiple lesions in single breast are seldom reported. We report a rare case of multiple fibroadenomas, 12 in number, in a young girl in left breast. Diagnosis was made ultrasonographically and with aspiration cytology. We managed to remove all lesions with 2 submammary incisions. There was no recurrence seen on follow up of 3 years.

Key words: Fibroadenoma, Breast, Cytodiagnosis, Breast Neoplasms, Neoplasm Recurrence.

Introduction

Fibroadenoma is the most common breast tumor in adolescent girls and women younger than 25 years [1]. Most fibroadenomas are present as a single mass; however, the presence of multiple fibroadenomas can be seen in 15-20% of the patients [2]. We report a rare case of multiple such lesions in single breast.

Case Report

16 year young female presented with dull aching pain and multiple masses in left breast since 3 months. On physical examination, the left breast was grossly enlarged. Nipple was normal in position. There was no evidence of nipple retraction or bleeding. The overlying skin was normal with no evidence of peau d'orange appearance. There were

multiple palpable masses throughout all quadrants of left breast. Size of masses ranged from 1.5x1.5 cm to 6x5 cm. They were well circumscribed and freely mobile, firm to hard in consistency. The right breast was normal on physical examination. There was no history of oral contraceptive exposure or medication. There was no family history of any breast lesions.

Ultrasonography of left breast showed multiple solid masses of different sizes. They were well circumscribed, round in shape with uniform echogenicity without calcification. FNAC of lesion showed both stromal and epithelial components consistent with fibroadenoma. Routine laboratory investigations were normal. We managed to excise 12 fibroadenomas with 2 submammary incisions

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under general anaesthesia. Due care was taken to prevent ductal structural injury.

On gross examination, masses of size ranged from 1.5x1.5 cm to 6x5 cm [Fig.1]. They were round to elliptical in shape and hard in consistency. Fibrous capsule was present on the surface of lesions. Cut section showed greyish-white appearance with lobular architecture. On histological examination, the masses showed both epithelial and stromal components. The loose fibrous stroma was compressing the surrounding benign ducts with an intracanalicular growth pattern. The ducts showed focal hyperplastic changes. There was no epithelial and stromal cell atypia or malignancy seen. Histopathological features were consistent with fibroadenoma. Patient is now asymptomatic and no recurrence has been reported so far on follow up of 3 years.

Discussion

Fibroadenoma is the most common breast tumor in adolescent girls and women younger than 25 years with peak incidence between the second and third decades of life. It is not uncommon in postmenopausal women, with an increased incidence after hormone replacement therapy [1]. Fibroadenomas are benign tumors that are sharply demarcated from the surrounding tissue; some authors even consider them to be an aberration of normal development rather than a true neoplasm [3]. They consist of combined proliferation of epithelial and connective tissue elements, and there is good histologic evidence that these tumors develop from a lobular origin [4].

Fibroadenoma is usually a slowly growing lesion with size up to 3 cm [2]. Most fibroadenomas present as a single mass; however, the presence of multiple fibroadenomas can be seen in 15-20% of the patients [2]. It has been reported that the average number of masses in cases of multiple fibroadenomas are 3 to 4 in a single breast [5].



Fig.1: Multiple excised fibroadenomas of varying sizes.

The occurrence of more than five fibroadenomas in an individual patient is much less common. Majority of fibroadenomas do not recur after being completely excised. However, in adolescent patients, one or multiple new fibroadenomas can occur in areas adjacent to the prior surgical excision site of the same breast or even in the contralateral breast. Yamaç reported a case of multiple, bilateral and recurrent fibroadenomas in a 22-year-old nulliparous female [2]. Rong-rong reported a total of 50 fibroadenomas simultaneously presented in bilateral breasts and left axillary accessory breast [7]. In our case, there were 12 fibroadenomas in single breast on left side. There was no recurrence or new lesions in ipsilateral or contralateral breast. Unlike women with a single fibroadenoma, most of the patients with multiple fibroadenomas have a strong family history of these tumors [2] but in our case no significant family history was noted.

Conclusion

Multiple fibroadenomas in single breast without recurrence and without family history is very rare. We report it to expand review of literature.

References

1. Rosen PP. Fibroepithelial neoplasms. Rosen P. Rosen's Breast Pathology. 1st ed. New York, NY Lippincott-Raven Press: 1996;pp. 143-155.

2. Bellocq JP, Magro G. Fibroepithelial tumors. In: Tavassoli F, Devilee P, editors. World Health Organization Classification of Tumours: Pathology and Genetics: Tumours of the breast and female genital organs. Lyon: IARC Press: 2003; pp. 99–100.
3. Hughes LE, Mensel RE, Webster DJT. Aberrations of normal development and involution: a new perspective on pathogenesis and nomenclature of benign breast disorders. *Lancet* 1987;2:1316-1319.
4. Hughes LE, Mansel RE, Webster DJT. Fibroadenoma and related tumors. *Benign Disorders and Diseases of the Breast Concepts and Clinical Management* 2nd ed. Philadelphia, Pa WB Saunders 1999;73-94.
5. Wiegenstein L, Tank R, Gould VE. Multiple breast fibroadenomas in women on oral contraceptives. *N Engl J Med.* 1971;284:676.
6. Yamaç Erhan, Hasan Aydede, Aslan Sakarya, Mine Can, Ali Emre Atırcı, Ali Rıza Kandiloğlu *et al.* Multiple Recurrent Fibroadenomas in a Nulliparous Adolescent Female - Treatment Difficulty. *Indian Journal of Surgery.* 2002;64:529-531.
7. Rong-rong Zhang, Scott Bevan, Ping Sun, Jim Z Lu, Yan Peng. Unusual presentation of Multiple Fibroadenomas in Bilateral breasts and axillary accessory Breast. *Breast Cancer (Auckl).* 2012;6:95–99.