CASE REPORT

Multiple Fibroadenomas with Recurrence and its Management Report of two cases

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SUMMARY

Fibroadenomas are one of the most commonly occurring benign tumors in breast tissue. They range in two to four per breast. Although being non-cancerous in nature, fibroadenomas cause mental discomfort to the patient. The common age for fibroadenomas to occur is 20 to 30 years. However, the occurrence of multiple fibroadenomas (as shown in the discussion below) is not a common condition. Usually fibroadenomas are asymptomatic, but multiple fibroadenomas can be extremely painful and are highly tender to touch. Such cases require very careful management, as the patient might not cooperate for going under any kind of investigation due to extreme pain. This article focuses on multiple fibroadenomas, there occurrence, investigations and management.
Keywords: Multiple, recurrence, rare condition, painful, bilateral, investigations, management.

INTRODUCTION

With increasing age, the human body undergoes several physiological and morphological changes. The peak time of these modifications occurs during adolescence. It is this time that most adult differences in morphology, composition and performance have their genesis[1]. During these changes, females face a common condition called Fibroadenoma. Fibroadenomas are one of the most common benign tumors of the breast in the adolescent population[2]. Fibroadenomas can be of juvenile, cellular, or giant types. Most often found in women between the ages of 15 and 35, fibroadenomas are affected by women's hormone levels and can grow larger during pregnancy or smaller after menopause[3]. Studies have shown that fibroadenoma is solid, noncancerous breast lump which tends to not be malignant in most cases. Usually painless, it described as feeling like a marble in the breast, moving easily under the skin when examined [4]. Prevalence of simple fibroadenomas in this age group in the general population is reported to be 2.2%, and is said to decrease with increasing age[5]. The risk that malignant transformation will occur in any fibroadenoma is low and has been reported to be 0.0125-0.3%[6]. The data indicates that the presence of a fibroadenoma is a parameter independent of the development of cancer in either the ipsilateral or contralateral breast and does not influence the clinical course of the malignant neoplasm, other than that it contributes to its earlier detection[7]. In women, estrogen and progesterone hormones are some of the important hormones in maturation and help them to prepare for fertilization. Genetic mutation, age, menarche, alcohol consumption, and estrogen exposure are some of the common risk factors in developing fibroadenoma. Evidence of an association between the age of menarche, age of menopause, and hormonal therapy, including oral contraceptives, has been less consistently shown for fibroadenoma[8]. Participant characteristics known to confer protective effects for breast cancer (older age of menarche, more children, and larger childhood body size) were also found to reduce the risk of fibroadenoma[9]. The pathogenesis of fibroadenoma is unknown, but estrogen may contribute to its development[14]. During puberty, the lobules and stroma in the breast may respond to the increased levels of estradiol and progesterone, leading to an increase in breast size of up to 15% and the development of single or multiple palpable fibroadenomas[15]. Fibroadenoma itself is usually not a life threatening condition, and most patients will not develop cancer from fibroadenoma. However, it is an important risk factor for some to develop cancer. This can be avoided by regular checkup. If the woman has an average risk of developing breast cancer, the ACS encourages a discussion of screening starting from age 40 years [10]. Currently, FNA, mammogram and ultrasound techniques are being used for diagnosis of fibroadenomas. Screening for breast cancer with mammography aims at detecting breast cancer at an early, curable stage[11]. For treatment, surgical excision is the choice, especially cryoablation. The preferred management of multiple fibroadenomas is complete excision. However, this approach can lead to undesirable scarring or to extensive ductal damage if all the fibroadenomas are excised through one incision[12]. Open excision may still be the best option in some cases based on the patient's preference, the judgment of the surgeon, or how large the fibroadenoma is[3].Taking into account its recurrence, much less is known as only a few cases are ever seen with recurrence. Proper surgical excision usually leads to satisfactory results. However, the data suggests that the mechanism of recurrence is the regrowth of retained lesion fragments too small to be detected by ultrasound—not the incomplete excision of all imaged lesion evidence[13]. Wang et al. examined ultrasound images obtained 6 months after ultrasonographically guided vacuum-assisted excision and demonstrated a recurrence rate of 3.4%[16]. Recurrence may not be associated with the surgical margin, age of the patient, or position of the mass[17,18]. The following are some cases with multiple fibroadenomas and recurrence. Patients were made aware of this case report and their confidentiality is kept undisclosed. The goal of this article is to evaluate such cases and thus possible management for such patients.

CASE REPORT

Two females of 20 and 28 years old with multiple fibroadenomas of breast

DISCUSSION

Clinically, cases of juvenile multiple fibroadenomas are rare. A 20 year old female got her ultrasound breast done which showed bilateral fibroadenomas, with 3 fibroadenomas in the right breast and 5-6 fibroadenomas in the left breast. Bilateral reactive axillary lymphadenopathy was noted as well. There was no internal necrosis or hemorrhage present. She had no family history of breast disease. History of estrogen therapy, radiations and trauma were absent. Age of menarche was 14 years. At the age of 15, she noticed tender lumps in both of her breasts, which she took for the normal hormonal changes as a part of premenstrual syndrome. She consulted her doctor and got her ultrasound done. A decision was taken for excision of these lumps at the age of 19. There was no associated nipple discharge or any breast skin changes at the time of presentation. After undergoing surgical excision of the lumps, the breast contour was disturbed and she had to face psychological problems due to it. Reconstructive surgery was not performed because she did not agree to it. There was recurrence of fibroadenomas at the age of 20 years and its ultrasound report is discussed in the beginning.

Another case is of a 28 years old female, presented with 13-15 fibroadenomas in the right breast with few minimally dilated ducts seen in the retroareolar region, and 2-3 enlarged lymph nodes noted in the right axilla, whereas 7 fibroadenomas were noted in the left breast. She had no family history of previous breast disease. Age of menarche was 13 years. History of trauma, chest radiation , estrogen exposure was absent.

Both the patients had to suffer from the consequences of scars after surgical excision and again a tremendous amount of stress and pain associated with it.

Etiology: The exact cause is unknown. They may be related to changing levels of hormones since they often appear during puberty or pregnancy and disappear after menopause.

Risk Factors: Family history, the age of menarche, age of menopause, oral contraceptive use, prior history of benign breast disease and body mass index [19] may involve the development of fibroadenomas. They may be related to rare diseases or syndromes such as Carney's syndrome [20], Cowden syndrome [21], Beckwith-Wiedmann syndrome [22, 23, 24] and Maffucci syndrome[25].

Types of Fibroadenomas: Simple fibroadenomas, Complex fibroadenomas, Juvenile fibroadenomas and Giant fibroadenomas. The recurrence of fibroadenomas mainly appear before the age of thirty and then declined with increasing age.

Risk of developing breast cancer: Benign breast diseases are usually subdivided into non-proliferative lesions, proliferative lesions without atypia, and non-proliferative lesions without atypia. In most of the cases, non-proliferative lesions with atypia increases the risk of developing breast cance[26,27,28].

CONCLUSION

Fibroadenoma of breast is a common condition. However, its multiplicity and recurrence is not common. Due to its pain and discomfort, usual investigations and management might not be helpful. Recurrent fibroadenoma is a rare clinical condition, and it has therapeutic challenges for surgeons and pathologists[29]. Triple test for breast is one of the preferable investigations that can be done in these cases. For surgical excision, Gaillard method is a promising method which ensures removal of Fibroadenomas as well as cosmetic outcomes to the patient. Fibroadenoma itself is a cause of great anxiety and worry for both the patient and their family. Therefore, a communicative approach is necessary for reassurance of patient and it is essential to develop a sense of trust between doctor and patient. The physician should reassure the patient about the benign or malignant course of the disease and its line of action. Conservative treatment, proper diagnosis, and regular follow-ups can be sufficient to counter this disease.

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