

Surgical Excision of Fibroadenoma in a 19-Year-Old Female: A Case Report Utilizing Circumareolar Incision

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ABSTRACT

This case report presents the surgical management of a fibroadenoma in the left breast of a Nineteen-year-old female. The patient was exposed with the complaint of a palpable lump in her left breast, prompting further investigations. Ultrasonography revealed the presence of a lesion consistent with fibroadenoma. Subsequently, the patient underwent surgical excision of the lesion to alleviate discomfort and address diagnostic concerns. The procedure involved a Circumareolar incision followed by meticulous dissection and excision of the fibroadenoma lump. Postoperative evaluation confirmed successful removal of the lesion with resolution of associated symptoms. This case uplifts the importance of prompt diagnosis and appropriate management of benign breast masses in young patients to alleviate anxiety and ensure optimal positive outcomes.

Keywords: Young Female Patients, Fibroadenoma, Ultrasonography, Surgical excision, Postoperative.

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INTRODUCTION

The most prevalent carcinoma of the breast in teenage girls is fibroadenoma, which is also possible at any point in life but is particularly prevalent in those within the age range of twenty and forty.¹ In children and adolescents, fibroadenomas constitute thirty to fifty percent of noticeable mammary heaps, whereas in a comparable age bracket, surgically eliminated lumps in the breast are 44-94%.² It often manifests as a circumscribed malignancy that is therapeutically perceptible as a spherical, elastomeric bulge that flexes. Fortunately, quiescent plaques are typically revealed by mammography when the tumor looks like a precise ball.³ Having fibroadenomas boosts one's likelihood of acquiring cancer in the breast by approximately two to three times.⁴ The probability of contracting malignancy in the breast by fibroadenoma is assumed to be durable, unlike the elevated risk of breast cancer linked to other harmless mammary ailments such as idiopathic hyperplasia, which may eventually drop.⁵ The hazard of fibroadenoma spires at a highly youthful age (20-30 years) and then the hazard diminish dramatically at postmenopausal time. It is uncertain what causes fibroadenoma specifically.⁶ Nevertheless, several research studies demonstrate that estrogen affects the growth of fibroadenomas.⁷ Taking an oestrogen-progesterone

birth control pill prior to retirement and having more live babies reduce the likelihood of fibroadenoma.⁸ The number of cases of fibroadenoma and the body's mass index are also (a study showed its relation with a group of BMIS 25-30 kg/m²).^{9,10}

CASE PRESENTATION

A 19-year-old female attended herself to a medical practitioner with complaints of a movable lump discovered during self-examination of her left breast, which she noticed without any associated pain. The patient, concerned about the presence of the lump, sought medical advice. Upon initial evaluation, the medical practitioner noted the absence of any other concerning symptoms. A palpable lump led to the performance of further investigations as necessary. Based on the subjective evidence provided by the patient, a decision is made to proceed with breast ultrasonography to assess the nature and characteristics of the detected lump. The ultrasonography revealed the presence of a well-defined lesion measuring approximately 3x2 cm in the left breast. The lesion appeared firm and was found to be mobile upon palpation. (As shown in Figure 1). There is evidence of two well-defined homogenous hypoechoic solid lesions with smooth margins and high resistance type of internal vascularity at the left breast (2.8*2.0 cm at 10 o'clock position) and (1.1*0.9 cm at 4 o'clock position). Positively, the typical architecture of breast parenchymal cells was not distorted.

Following the clinical diagnosis of fibroadenoma, specimen excision for biopsy is initiated. It accomplished the presence of



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a brownish nodular mass (2.5*2*1.5 cm). Microscopy revealed breast tissue proliferation and compressed ducts and ductulus separated by fibro collagenous stroma. In addition to the medical findings, the patient disclosed a significant ancestral root of breast disease, with her mother having previously undergone surgical removal of a breast lump. This familial history raised concerns about potential hereditary predispositions to breast conditions and further underscored the importance of thorough evaluation and management.

Given the combination of clinical and family history findings, a multidisciplinary approach involving a breast surgeon is adopted. After thoroughly discussing the available treatment options, it is decided to proceed with surgical excision of the lesion to confirm the diagnosis accurately. The surgical intervention involving a Circumareolar incision on the left breast is validated for its cosmetic advantages and minimal scarring potential. The postoperative course went without incident and the individual was discharged the day following the surgery. Follow-up examinations revealed no evidence of metaplastic changes.

DISCUSSION

Diagnosis for fibroadenoma commonly includes Ultra Sound followed with or without biopsy. One well-known method for evaluating mammary gland pictures is ultrasound. It is currently used to distinguish between harmless and malignant breast residue to supplement its original function of defining concrete from fluid points.¹¹

The most reliable method for affirming the classification and discerning carcinoma of the phyllodes and mega fibroadenoma from other tumors in the mammary gland is still core needle biopsy. (Although usage of local anesthetics over general is a contended topic).¹²

The median age of an individual and medical signs still impacts the oversight of fibroadenoma, which is still up for argument. The advised course to act for non-palpable spots is to adhere up to three years post a trio confirmation of fibroadenoma. Following, total surgical elimination of all palpable scarring, with the necessity for a brief monitor deploying the trio assessment, which is a subjective breast test, visualization probes (ultrasound) and biopsy-for warts that are palpable.¹³⁻¹⁵

The strategy adopted for healing harmless breast carcinoma is an operation that can vary from a straightforward mastectomy to regional resection.¹⁶ Even when the person turns up with osteosarcoma phyllodes (brutal, fibrous scar-like benign, harmless breast cancer lump), the chosen method of action for the vast majority of them is regional eradication.¹⁷ There have been indications of neighborhood resurgence when dealing with several youthful fibroadenomas; this can be accomplished by more thorough ectomy.¹⁸ Youth women may have fretted about chest inequality or perhaps a lack of development, which has



Figure 1: Ultrasonography of left Breast with well defined Homogeneous Hypoechoic Solid lesions.

horrifying mental impacts on prospective motherhood and societal confidence. Hence, expert surgical practice is validated.¹⁹

Management

Medical removal in tandem with a physiologically akin treatment is crucial for fibroadenoma. During operations, injections of fentanyl citrate (0.1 mg/mL) and Kabimol (0.5 gm/50 mL), exhibiting analgesia and an antipyretic real estate, were given to alleviate agony. Dexamethasone, an anti-inflammatory steroid, is administered as the pinnacle for after-the-operation therapy. Anti-cholinergic medications such as pyrolite and troponin were given to suffer during the procedure to keep their hearts pounding smoothly and to lessen bodily discharges. Since propofol has a straightforward recuperation trajectory and functions decisively, it is the ideal medication for general anesthesia. Oral antibiotics and painkillers have been prescribed for at least a week following a successful reconstructive operation.

CONCLUSION

The primary treatment approach typically involves surgery. A Circumareolar incision is a dependable technique for effectively removing breast lumps, resulting in favorable cosmetic results. The outlook following surgical intervention is generally favorable.

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CONFLICT OF INTEREST

The author(s) declared no potential conflicts of interest concerning this article's research, authorship and publication.

ETHICAL APPROVAL

Our study was approved by the Institutional Ethical Committee. (KCP-1114?2023-2024).

ABBREVIATIONS

BC: Breast cancer; **BMI:** Body mass index's; **SE:** surgical excision; **USG:** Ultrasonography.

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