

CASE REPORT

Incidentally Diagnosed Lobular Carcinoma-in-Situ in a Case of Multiple Fibroadenomas

Asma Niaz Khan¹

ABSTRACT

A case of lobular carcinoma *in situ* (LCIS) arising within a fibroadenoma. Diagnosis of LCIS was made based on histopathological examination of the excised lumps. The case report highlights the role of histopathology in the diagnosis of this entity coexisting in a fibroadenoma, as ultrasound missed the presence of pre-malignant cells. Fibroadenomas have genetic correlation, as was defined in our case. This case stresses the need for histological evaluation of all breast masses in women.

KEY WORDS: LCIS, fibroadenoma, Histopathology, Non Invasive Breast Cancer.

taken from private education institutes of Karachi. Second, they all had the same level of affordability. Third, only those subjects who were between the age groups 19 to 25 years could be included.

In this study conducted in two colleges of Pakistan, our findings were no different than previous studies conducted abroad. Even though the hazards of smoking have been included in the curriculum, it has not made significant impact in the outlook of students. While students studying medicine were better aware of the risks associated with smoking and tobacco consumption, their overall knowledge of the health risks was unsatisfactory. A significant number of medical students were unable to list and hence effectively counsel about long and short term health benefits. Peer pressure and media played a large role in students picking up the habit.

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¹ Asma Niaz Khan
Assistant Professor, Department of Anatomy, United Medical and Dental

INTRODUCTION

Fibroadenoma is the most common benign breast tumor in adolescent girls and young women with a peak incidence occurring in the second and third decades of life. Carcinoma arising within a fibroadenoma is rare and is usually discovered incidentally.¹ Mammography is the standard of reference for the detection of breast carcinoma, yet 10%–30% of breast cancers may be missed at mammography. Possible causes for missed breast cancers include dense parenchyma obscuring a lesion, poor positioning or technique, perception error, incorrect interpretation of a suspect finding, subtle features of malignancy, and slow growth of a lesion.²

In lobular carcinoma in situ (LCIS) cells that look like cancer cells are growing in the lobules of the milk-producing glands of the breast, but they do not grow through the wall of the lobules. LCIS (also called *lobular neoplasia*) is sometimes grouped with ductal carcinoma in situ (DCIS) as a non-invasive breast cancer, but it differs from DCIS in that it doesn't seem to become invasive cancer if it isn't treated. Women with lobular carcinoma in situ (LCIS) have a 7 to 11 fold increased risk of developing cancer in either breast.³ Fibroadenoma considered as a risk factor for development of breast cancer, its reporting has been overshadowed by that of breast cancer. Early diagnosis and treatment can relieve anxiety associated with non-malignant conditions of the breast.

It is deduced that majority of cases diagnosed as fibroadenoma, that were in their second and third decades (16-30 years), may be due to hormonal dependency, participation in lactation, and involution at menopause, which could be a possible contribution to lump formation.⁴

CASE

A 28 years old woman came to surgical OPD at Civil Hospital Karachi, with the complaint of swellings in both breasts since one year, that had increased in size with time. She had no mastalgia, nipple discharge and skin changes or any systemic symptoms. There was absence of family history of benign breast lumps, her

mother and one elder sister were already operated for fibroadenomas few years back, and were uneventful till date. Clinical examination revealed three lumps which were non-tender, mobile, hard, firm and slippery on palpation in both the breast, one in the left breast upper outer quadrant measuring around 3x2cms. Two in the right breast, one in inner lower quadrant measuring 2.5x3cms approximately other lied below the areola towards the upper outer quadrant measuring 2x2cms approximately. No auxiliary and supraclavicular lymph nodes were palpated in both the axilla. Mammography and ultrasonography confirmed their presence of all the three lumps palpated clinically, with no enlarged lymph nodes in both axillas.

The patient opted for excision of the lumps and refused for fine needle aspiration cytology. The patient was admitted for excision biopsy of both breasts. All three lumps were excised and sent for histopathology, in three separate jars, with their site of origin labeled. The excised lumps were firm, solid and slippery to hold, the lump in the left upper outer quadrant was 2.5x2.5cms, the lump in the right lower quadrant measured 2.5x2.0cms, and the lump below the right areola was 2x2cms with a tan gray lesion inside the lump. The post-operative period was uneventful and the patient was discharged after 24 hours with clean wounds next day and with a planned follow-up and biopsy report after two weeks. Histological examination of all the three masses revealed fibroadenomas, but the one which lied below the areola in the right breast revealed a focus of lobular carcinoma-in-situ that was completely confined within the fibroadenoma. After discussing treatment options with the patient, a policy of continued surveillance was decided upon. The patient remains asymptomatic 2 years & 4 months after the procedure.

DISCUSSION

The risk of missing breast cancer in women under 25 years of age who have Fibroadenomas diagnosed by physical examination, sonography, and FNA is 1 in 229 to 1 in 700.⁵ In our case the LCIS was missed in the ultrasound. Carcinomas arising within a fibroadenoma have the same behavior as those developing independently, so their treatment should be the same. The debate

about which therapeutic procedure should be followed in a case of a carcinoma in situ within a fibroadenoma reflects the controversy concerning optimal treatment of LCIS and DCIS. Although DCIS and LCIS are noninvasive breast cancers, their biological behavior differs considerably. Breast conservation therapy is clearly a reasonable treatment option in most women with DCIS within a fibroadenoma, whereas most women with LCIS within a fibroadenoma will prefer to be treated by close surveillance after local excision and biopsy. Although LCIS can be treated by prophylactic mastectomy, the procedure is generally considered an excessively aggressive approach for most women.^{6, 7, 8}

In our case the diagnosis was made based on the histopathology report, and offering

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conservative treatment could have resulted in invasive carcinoma of breast. It appears choosing the excision biopsy was a better option instead. There are two reports on the simultaneous occurrence of CIS (carcinoma-in-situ) arising within multiple fibroadenomas. In both reports a patient is described with two fibroadenomas containing LCIS.^{9,10}

Learning from the case highlight that instead of depending on radiological reports for diagnosis, the FNAC should be mandatory, especially if opting for conservative treatment of Fibroadenoma. Close monitoring of the lump should be done and once excised should be sent for histopathology. There is a familial connection between occurrence of fibroadenomas, just like breast cancers.

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