CASE REPORT

MISSED DIAGNOSIS OF PHYLLODES TUMOUR AND ITS IMPLICATIONS - A CASE REPORT

DAS PK, RAHMAN AZM, SINA ND, MAMUN AMA

Abstract:

Phyllodes tumours are rare fibroepithelial tumours that accounts for less than 1% of all breast tumours. Phyllodes tumours tend to grow quickly but they rarely spread outside the breast. Although most phyllodes tumours are benign, some are malignant and some are borderline. It is often underdiagnosed by pathologists and under treated by surgeon. Its heterogenicity makes phyllodes tumour a challenge for the clinicians and the pathologists. Accurate preoperative diagnosis by Fine Needle Aspiration Cytology or by Core biopsy or peroprative diagnosis by Frozen section biopsy is essential for adequate surgical treatment. This case describes a missed diagnosis of phyllodes tumour both by cytopathologically and histopathologically.

DOI: https://doi.org/10.3329/jdmc.v29i2.51195
J Dhaka Med Coll. 2020; 29(2) : 182-184

Introduction:

Phyllodes tumour is a rare tumour of the breast[1,2]. They can occur at any age but commonly develop when a woman is in her 40's. Phyllodes tumours tend to grow quickly, within a period of weeks or months, to a size of 2-3 cm or sometimes larger. If left unchecked, the lump can create a visible bulge as it pushes agains skin and in more advanced cases a phyllodes tumour can cause an ulcer on the breast skin. Most cases are benign but occasionally malignant phyllodes tumours are encountered[3,4]. Phyllodes tumours are sometimes mistakenly ignored as they have morphological resemblance to fibroadenoma albeit with increased stromal cellularity and leaf like architecture[1].

The WHO classification of phyllodes tumour into benign, borderline and malignant is based on a combination of histologic features, such as cellularity of stroma, nuclear atypia, mitosis, over growth of stroma and pushing/infiltrating margin[3]. The phyllodes tumour has to be identified from common benign fibroadenoma which is a clinical, radiological and morphological mimicker.[4] Here we present a breast malignant phyllodes tumour patient who previously underwent excision for fibroadenoma in same breast.

Case Report:

A18 year old female came with recurrent lump in her right breast on 1st May 2020. Her first presentation was with a gradually increasing lump in her right breast for 9 months which was about 7cm x 5cm, mobile, nontender wthout axillary lymphadenopathy. Ultrasonography revealed heterogenous mass in right breast and Fine Needle Aspiration Cytology report suggested granulomatous mastitis. Due to lack of correlation between clinical and cytological diagnosis, excision biopsy was done. Gross description of the specimen was - a nodular piece of tissue with gray brown cut surface and microscopic examination revealed fibroadenoma.

After counselling of the patient, we did wide excision of the recurrent lump and send for histopathological examination. Gross description of the specimen was –An irregular

1. Dr. Prosunto Kumar Das, Assistant Professor of Surgery, Dhaka Medical College Hospital
2. Dr. AZM Mahfuzur Rahman, Associate Professor of Surgery, Dhaka Medical College Hospital.
3. Dr. Md. Nayeem Dewan (Sina), Assistant Professor of Surgery, Dhaka Medical College Hospital.
4. Dr. Abu Masud Al Mamun, Assistant Registrar of Urology, Dhaka Medical College Hospital

Correspondence: Dr. Prosunto Kumar Das, Assistant Professor of Surgery, Dhaka Medical College Hospital

Received: *28-05-2020* ***Revision:*** *22-06-2020* ***Accepted:*** *01-10-2020*

gray brown piece of tissue measuring 5.4cm x 4cm x 4 cm. Cut surface has gray-brown solid lobulated with small cleft like spaces. Microscopic appearance was - cystically dilated ducts lined by hyperplastic epithelium and hypercellular stroma containing atypical spindle cells with marked degree of pleomorphism, increased number of mitoses and focal areas of necrosis all of which confirmed the diagnosis of malignant phyllodes tumour.

Discussion:

Phyllodes tumours of the breast are rare breast tumour accounting less than 1% of all breast tumours [(2)].To prevent recurrent disease, early accurate diagnosis and adequate surgical treatment is essential. Classically they present as painless, firm, mobile, well delineated and lobulated mass. The Mammographic and Ultrasonographic features are not specific for phyllodes tumour [(5)]. Preoperative probable diagnosis can be achieved by Fine Needle Aspiration Cytology and Core biopsy but their limitation factor is common cytological features with fibroadenoma. Both the tumours have dimorphic pattern with epithelial and stromal components. An adequate and representative sample determines accuracy of the report.

Frozen section biopsy remains an important diagnostic method when imaging, cytology or core biopsy fails to make a preoperative diagnosis and when there is strong clinical suspicion.

Histopathologically, phyllodes tumours are classified as benign, borderline or malignant on the basis of features such as margin (pushing vs infiltrative), degree of stromal over growth, stromal cellularity, pleomorphism, mitotic activity and tumour necrosis[8]. A benign tumour has 0-4 mitoses/10 HPF, with predominantly pushing margin and no or mild stromal cellular atypia. Borderline tumours are identified by 5-9 mitoses/10 HPF with pushing or infiltrative margin and moderate stromal cellular atypia. Malignant phyllodes tumours are characterised by 10 or more mitoses/10HPF with infiltrative margin and high grade stromal cellular atypia. In our case features of malignant phyllodes tumour was noted.

Surgery is the treatment of choice for benign phyllodes tumour with local excision allowing 1-2 cm of clear margin in all directions [(8)]. Mastectomy is performed in malignant phyllodes tumour and in tumours larger than 5 cm. The role of radiotherapy and chemotherapy is not certain [8].

Conclusion:

The phyllodes tumours should be accurately diagnosed and effectively treated at first diagnosis as these tumours have high risk of recurrence. Overlapping features make some fibroadenoma and phyllodes tumour indistinguishable at first presentation. More attention is required to make accurate and effective first diagnosis. Furthermore, standard therapeutic strategy for phyllodes tumour is of urgent need to reduce the risk of recurrence as well as mobidity and mortality from recurrent malignant phyllodes tumour.

References:

1. Tan BY, Acs G, Apple SK, et al. Phyllodes tumours of the breast: a consensus review. Histopathology 2016;68:5-21.
2. Chen WH, Cheng SP, Tzen CY, Yang TL, Jeng KS, Liu CL, Liu TP. Surgical treatment of phyllodes tumours of the breast: retrospective review of 172 cases. J Surg Oncol2005;91(3):85-94.
3. Zhang Y, Kleer CG. Phyllodes tumours of the breast: Histopathologic features, differential diagnoses and molecular genetic updates. Arch Pathol LabMed 2016;140:665-71.
4. Bandopadhy R, Nag D, Mondol S, Mukhopadhy S, Roy S, Sinha S. Distinction of phyllodes tumour from fibroadenoma: cytologists perspective. J Cytol 2010;27:59-62.
5. Nikumbh BD, Dravid VN, Kanthikar NS, Patil T, Surana A. Giant borderline phyllodes tumourof the brest: A cytohistopathological correlation with brief review of literature. Int J Med HealthSci 2014;3:230-4.
6. Machado NO. Recurrent giant phyllodes tumour of the breast: pathological consideration and management approach for recurrence and metastasis. Surg Sci 2012;3:220-5.
7. EI HagIA, Aodah A, Kollur SM, Attallah A, Mohammad AA, Al –Hussaini H. Cytological clues in the distinction between phyllodes tumour and fibroadenoma. Cancer cytopathol 2010;118:33-40.
8. Hassouna JB, Damak T, Gamoudi A, Chargui R, Khounsi F, Mahjoub S et al. Phyllodes tumours of the breast: A case series of 106 patients. Am J Surg 2006;192:141-147.