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CASE REPORT/OLGU SUNUMU

SCLEROSANT PAPILLARY LESION: A TRAP LESION IN THE DIFFERENTIAL DIAGNOSIS OF MALIGNANCY IN A YOUNG PATIENT CASE REPORT

Özgür Türkmenoğlu[1], Ahmet Dağ[1], Tamer Akça[1], Ayşe Polat[2], Erdem Yücel[1], Suha Aydın[1]

[1]Mersin Üniversitesi Tıp Fakültesi, Genel Cerrahi Anabilim Dalı, Mersin, Türkiye
[2]Mersin Üniversitesi Tıp Fakültesi, Patoloji Anabilim Dalı, Mersin, Türkiye

SKLEROZAN PAPİLLER LEZYON: GENÇ HASTADA MALİGNİTE AYIRICI TANISINDA TUZAK LEZYON

ÖZET

Memenin papiller lezyonları çeşitli benign, atipik ve malign lezyonları içermektedir. Klinik, radyolojik ve histolojik olarak benign meme lezyonları ile karışabildiği gibi malign lezyonlarla da karışabilirler Bununla birlikte, tedavi yöntemleri tanıya göre değişkenlik gösterdiğinden kesin tanı konulması önem kazanmaktadır. Bu yazıyla papiller tip lezyonların temel klinik, radyolojik, patolojik özellikleri ve tedavi yöntemi bir olgu sunumuyla aktarılmaya çalışıldı.

Anahtar sözcükler: sklerozan, papiller, meme lezyonları

ABSTRACT

Papillary lesions of the breast include various benign, atypical, and malignant lesions. These lesions clinically, radiologically and histologically are not only may interfered as benign breast lesions but also can be confused as malignant lesions. However, cause the fact that the treatment methods vary according to the precise diagnosis, definitive diagnosis gain importance. In this article; the clinical, radiological, pathological features, and treatment modalities of papillary type breast lesions was presented with a case report.

Keywords: sclerosant, papillary, breast lesions

Introduction

Papillary lesions of the breast include several pathologic processes consisting of papilloma, papillomatosis, papillary hyperplasia without atypia, invasive papillary carcinoma, atypical micro papillary hyperplasia, micro papillary ductal carcinoma in situ, and micro papillary invasive carcinoma (1). Papillomas are formed by ductal epithelial proliferation with a fibro vascular pedicle (2). Papillomatosis is accepted as a precursor lesion for breast carcinoma (3). On the other hand, they can be radiologically and histologically confused with benign breast lesions as well as malignant lesions (4). Although the therapy of papillary lesions progressing from benign lesions to atypical and malignant lesions varies due to the diagnosis, the definitive diagnosis should be made accurately to avoid unnecessary mastectomy. It was aimed to present main clinical, radiological, and pathologic characters of papillary lesions and therapeutic methods by diagnosis with the presentation of a patient mimicked malignant breast disorder clinically and pathologically.

Case presentation

A 16-year-old woman presented at a General Surgery Outpatient Clinic of an institute with a hard, painless, and partially mobile mass with irregular margins, approximately 3x2 cm in size, and located in the upper outer quadrant of the right breast. After examination, an excisional biopsy of the mass was performed without any further analysis. The result of pathological examination reported the lesion as infiltrative ductal carcinoma. The patient was referred to our outpatient clinic for right modified radical mastectomy.

On physical examination, there was an incision scar from the biopsy that was performed at the 9 o'clock position in the right breast. The left breast and bilateral axilla were normal on examination.

The control breast ultrasonography of the patient showed a hypoechoic solid lesion with irregular margins, approximately 7.5x7 mm in size located below the skin scar, 3 cm distant to the areola at the 9 o'clock position in the right breast. This appearance was evaluated to be either a residual lesion of clinical malignancy or a surgical scar developed after excisional biopsy. No evident sonographic pathology was observed in the left breast.

The pathology slides of excisional biopsy performed in another institute were consulted with the pathology department of our hospital. It was reported that the histological findings could be sclerosing papilloma. The slides were also referred to another center due to the young age of the patient and the doubt of malignancy stated in previous evaluation. On the evaluation of that center, it was re-

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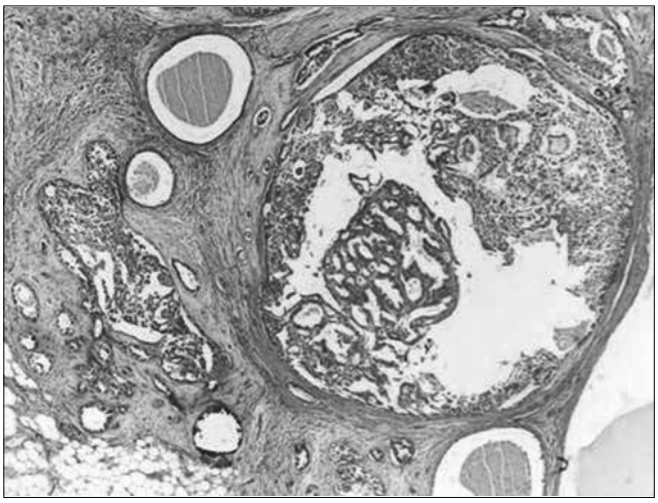

Figure 1. *(X40, H&E):* A papillomatous structure proliferating into cystic cavity along with a lesion generating solid foci is observed.

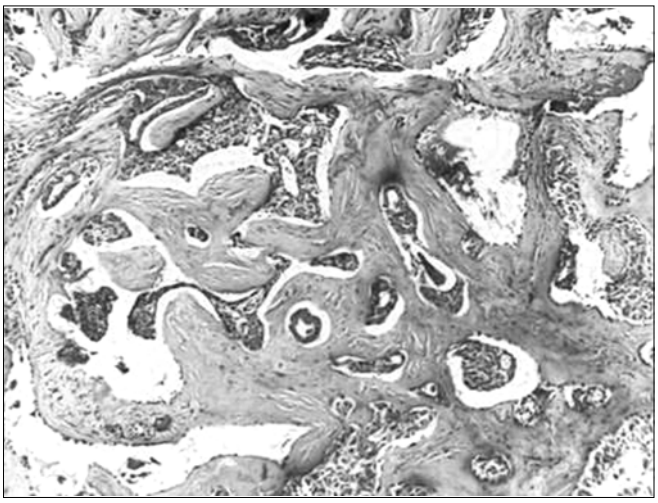

Figure 2. *(X40, H&E):* In another region, a proliferating tumor generating smaller groups and the stroma including hyalinized sclerosis is remarked.

ported that the histopathological findings could be juvenile papilloma and it was suggested the slides be consulted with Mayo Clinic, USA. As a consequence of the consultation requested from Mayo Clinic, the findings were evaluated to be a sclerosing papilloma.

Because it was unknown whether the surgical margins of the lesion were removed by biopsy in another institute were negative and a solid mass was defined on the breast ultrasonography, the patient had a excisional biopsy for residual tissue by stereotatic labeling. The total removal of the mass was confirmed by perioperative ultrasonographic controls. On the histopathological examination, no sign of malignancy and sclerosing papilloma were found and it was reported to be fibrocystic alterations.

Discussion

Papillomas are formed by development of ductal epithelial proliferation with a fibrovascular pedicle. Papillary lesions of the breast are usually confused with other breast lesions clinically, radiologically, and histologically. The differential diagnosis should carefully be made especially from malignancies. According to Tavasolli and Rosen, papillary lesions of the breast are classified as papilloma, papillomatosis, sclerosing papilloma, atypical papilloma, carcinoma arising from papilloma, intraductal papillary carcinoma, and invasive papillary carcinoma (2,5,6). Papillary lesions are called papilloma when they are central and solitary; papillomatosis when they are placed in periphery and into more than one terminal ductal lobular unit. Although papillary lesions are uncommon, they generate 10% of benign breast lesions and 0.5% to 2% of malign lesions (7).

Papillary neoplasms are generally seen in the patients under 30-year-old (2,5,8). Our patient was 16 years old.

Approximately half of the papillary lesions occur in the central region and clinically, the lesions near to areola generally lead to a nipple discharge (9). The nipple discharge may be unilateral, from a single duct, serous or hemorrhagic in character. Bilateral nipple discharge or milky, green, or brown discharge from multiple ducts is related to non-papillary lesions such as fibrocystic alterations and lactational changes. On the other hand, clinically sclerosing papillary lesions can emerge as a palpable mass fixed to the skin and mimic an infiltrative breast cancer (2,4,5). Additionally, they can be identified accidentally without any symptom. Referral symptoms of our patient was a palpable, semi mobile, painless, and firm mass with irregular margins. The mass was located in periphery.

Mammography, breast ultrasonography, galactography, and breast MRI are used for imaging of papillary lesions. On mammography, papillary lesions are usually seen as nodular structures in higher density compared with simple cysts, varied from round to oval (10). Sometimes micro calcifications can be seen in older lesions. A micro calcification can be identified to be benign by radiologist. If a round or oval mammographic density is solid on ultrasonography, differential diagnosis includes fibroadenoma, papilloma, papillary carcinoma, or medullar carcinoma (10).

Ultrasonography is an imaging technique that can be helpful in young patient group. A solid, round mass with regular margins, an intracystic mass and a mass within a dilated duct can be seen by ultrasonography (1). Sometimes, multiple papillomas within dilated ductal system can be detected by ultrasound. Intracystic or intraductal papillomas generally show vascularity in Doppler ultrasonography. Galactography is the preferred imaging method to illustrate the lesions near to areola with spontaneous nipple discharge. Solitary papilloma is seen as an intraductal filling deficit or a cut off in a dilated duct (1). Micropapillary DCIS can be seen as multiple irregular filling defects. Breast MRI is a novel imaging method and not usually preferred for papillary lesions. However, it can illustrate large lesions. Although in micropapillary DCIS, cal-

cifications generally do not occur, MRI is useful to demonstrate the extensiveness of the disease in most cases. Therefore, breast-protective surgery is a helpful method for the patients to whom it is indicated.

In our patient, no imaging method was requested preoperatively; mammography and galactography were not performed to evaluate the residual tissue, because her age was not suitable, and only breast ultrasonography was used.

Histopathological tissue sampling methods in papillary lesions are generally the same. Fine needle aspiration cytology, core biopsy, vacuum-assisted biopsy and excisional biopsy are the methods used for histopathological diagnosis. Preoperative fine needle aspiration cytology (FNAC) in the diagnosis of papillomas is controversial. The incidence rate of false positivity or false negativity of FNAC in papillomas ranges between 3% and 17% in the literature (11-16). This diagnostic dilemma does not occur only cytologically but it can also be seen even with core biopsy. Because, it is reported that atypical ductal hyperplasia and ductal carcinoma in situ can be determined in most of these lesions (17). Therefore, some authors suggest the surgical removal of papillary lesions even those are determined to be benign by core biopsy (18). Our patient was also performed directly excisional biopsy in another institute.

Microscopically, stromal diffuse sclerosis, hyalinization, and distortion of breast lobule can be seen (Figure 1). Condensed, distorted, irregularly shaped, and proliferative ducts and tubules can mimic carcinoma leading to a pseudo-infiltrative appearance (19) (Figure 2). Also in our patient, the first evaluation made in another institute was reported as carcinoma.

Because of the diagnostic dilemma, three distinct pathology departments consulted the slides after the referral of the patient to our clinic; and the lesion initially presumed to be malignant was finally reported as sclerosing papilloma.

The risk of malignancy especially in papillomatosis has been reported to be 8-28%, lower in solitary papilloma (7,20). Hence, the differential diagnosis of papillary lesions is of importance. The presence of atypia is significant for the patients diagnosed with papilloma; and atypical papillomatosis should be distinguished from carcinoma, intraductal papillary carcinoma, and invasive papillary carcinoma arising from papilloma (21,22).

As the therapeutic method for papillary lesions depends on the diagnosis of the lesion, papillary lesions should be classified as benign, atypical, and malignant. Surgical therapy should be necessarily planned for malignant lesions. The presence of an atypical lesion may require surgery to eliminate the probable existence of a concurrent, more progressive lesion. However, excision is still controversial for the patients histopathologically diagnosed with a benign papilloma. Many studies suggest removal of the lesions showing atypia, whereas it has been highlighted that the excision of benign lesions is not needed (23,24,25). Consequently, it has been defined that the decision for benign lesions should be made multidisciplinary by pathological findings, concordance between clinical and imaging methods.

There are patients followed up for nearly 20 years in the literature. When the patients with papillary lesions showing or not atypia were compared each other, it has been defined that the presence of atypical epithelial hyperplasia were related to the development of recurrence and carcinoma (26,27).

In our patient, a stereotactic biopsy was planned to remove the residual tissue and to prevent a probable recurrence. However, no residual lesion was determined in the lesion removed. No recurrence occurred in 2-year follow up period of the patient.

Papillary lesions should be thought in the differential diagnosis of the lesions presumed benign appearance and malignancies that are identified clinically, on ultrasonography, or rarely on mammography of the patients referred with the complaint of a breast mass, especially in young ages and the diagnosis should be made pathologically. The patients diagnosed with a papillary lesion should be evaluated for atypia and a curative excision should be performed surgically to prevent recurrences.

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İletişim

Ahmet Dağ
Tel : 03243374300
Faks : 03243374305
E-Posta : dahmetdag@yahoo.com