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CASE REPORT FOR PAPILLARY DUCTAL CARCINOMA IN SITU (DCIS) IN BREAST

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BACKGROUND
A papillary variant of ductal carcinoma in situ (DCIS) is a rare subtype of DCIS characterized by its fibrovascular cores and epithelial neoplasms contained within the ducts. It accounts for approximately 0.5% of breast malignancies in general and all of all breast cancer. Its clinical and imaging appearance can mimic both benign and malignant disorders, which leads to diagnostic difficulty.

CASE PRESENTATION

A 85 year old postmenopausal female was admitted to King Hussein Military Hospital (KHMH) in September 2026 with a 1-month history of spontaneous bloody discharge from a left breast of a woman. Physical examination detected a mass without any change in associated skin. On mammography, patty circumscribed, Retroareolar densities without calcifications and a well-defined hypoechoic lesion with internal vascularity in the subareolar region was demonstrated ultrasound. By histopathologic analysis of a core needle biopsy, papillary structures confined to the lobules were identified with nuclear grade II atypia and no stromal invasion. Immunohistochemistry (IHC) was positive for estrogen receptor (ER) and progesterone receptor (PR) chromosome make out negative HER2, making the diagnosis of papillary DCIS.

Mastectomy and sentinel node biopsy The patient was treated to the extent of her disease by receiving a radical mastectomy for unilateral breast cancer with papillary DCIS without any invasive portion or lymph node metastases. Post operative adjuvant hormonal therapy with tamoxifen was started in accordance with the hormone receptor positive status.

Physical Examination

There was a palpable mass in retroareolar region and the overlying skin showed no abnormality. There were no palpable nodes in the axillae.

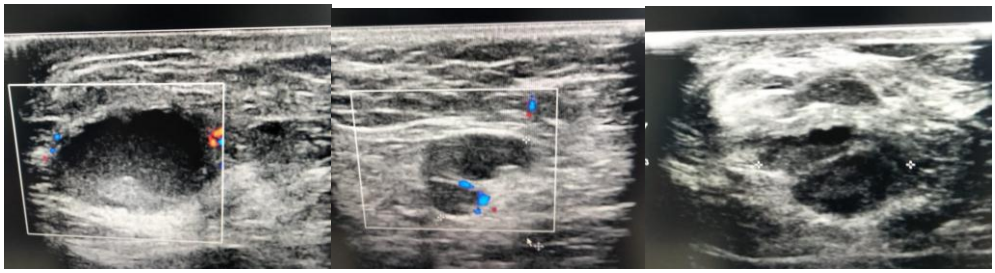
Imaging Studies

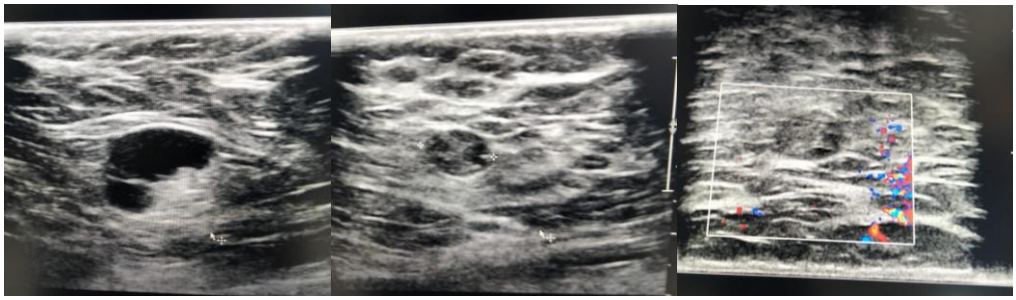
1. Mammography

A multiple well-circumscribed, retroareolar density in the left breast without associated calcifications or architectural distortion BIRADS 4c.

2. Ultrasound

A multiple hypoechoic, well-defined lesion with internal vascularity in the retroareolar region.

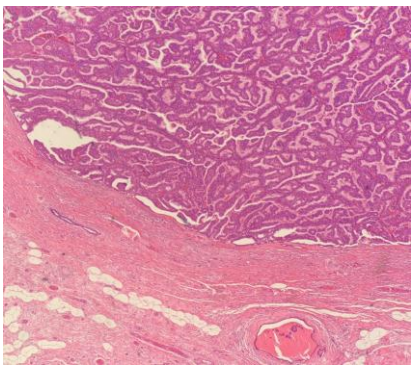




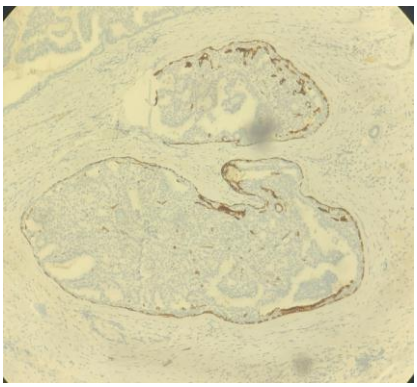
Pathological Evaluation

Core Needle Biopsy

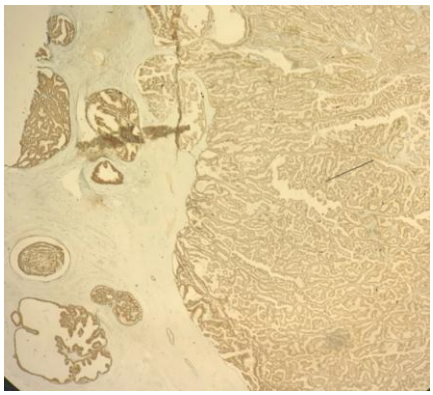
The histological examination revealed papillary structures located within the ductal system, which were lined by epithelial cells displaying nuclear grade II atypia. There was no indication of stromal invasion identified,



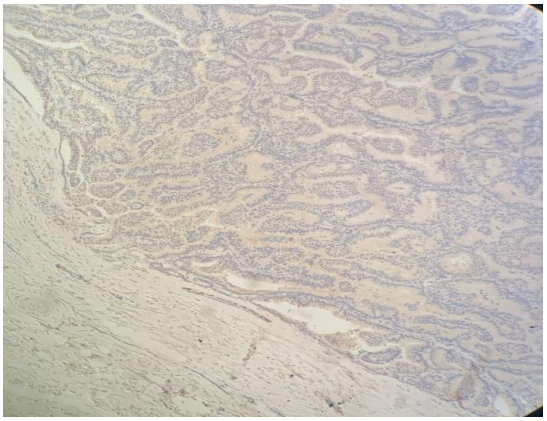
Immunohistochemistry (IHC)



Positive: ER, PR.



Negative: HER2, p63 (indicating the absence of myoepithelial cells within the lesions).



Treatment and Outcome.

On the patient: mastectomy and sentinel lymph node biopsy.

The final pathological presentation showed papillary carcinoma in situ (DCIS) with clear surgical margins and no evidence of invasive adenocarcinoma or axillary nodes.

Because of ER/PR positivity, she was prescribed adjuvant hormonal therapy (tamoxifen)·

Over the 12 months post surgical treatment, disease-free and recurrence/progression free

DISCUSSION

Papillary DCIS is a distinct and uncommon non-invasive breast cancer subtype associated with a good prognosis· When it occurs in the clinic, the affected person may complain of nipple discharge, but imaging findings may look like benign lesions and histopathologic confirmation is required· Lack of myoepithelial cells has been useful for distinguishing papillary DCIS from a localized intraductal papilloma, as confirmed by immunohistochemistry·

This involves radical surgical treatment being done with intent of clear margins· Adjuvant therapy should also be considered in terms of reducing recurrence (for example, through the use of tamoxifen) if the disease is hormone receptor-positive· Furthermore, the monitoring period needs to allow early detection of a local recurrence or any type of distant metastasis so that it could be treated·

CONCLUSION

Papillary ductal carcinoma in situ (DCIS): Papillary DCIS is a rare subtype of non-invasive breast cancer, which is must be differ from invasive papillary

carcinoma and benign papillary lesion with the appropriate imaging studies, histopathologic and some immunohistochemical (IHC) respectively, we reach this· Management of choice is surgical excision with adjuvant therapy based on hormone receptor status and individual risk factors· This case underlines the necessity of such multidisciplinary approach that we need to implement for optimal outcome in the patients with rare breast neoplastic entities·

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