Pseudoangiomatous stromal hyperplasia with giant cells in the female breast. No association with neurofibromatosis?

Zámečník M.[1], Dubač V.[2]

[1] Medicyt, s. r. o., Laboratory Trenčín, Slovak Republic
[2] Surgery Clinic, Faculty Hospital, Trenčín, Slovak Republic

SUMMARY
A simultaneous finding of pseudoangiomatous stromal hyperplasia (PASH) and stromal multinucleated giant cells (MGC) in mammary tissue was previously observed in patients with type-1 neurofibromatosis, indicating that it can represent a morphologic marker for this syndrome. Here, we present PASH with MGC occurring in the left breast of a 39-years-old woman who does not have neurofibromatosis. This case, along with two additional ones reported previously, indicates that PASH with MGC in the female breast may not be associated with neurofibromatosis.

Keywords: breast – multinucleated giant cells – pseudoangiomatous stromal hyperplasia – neurofibromatosis type-1

Pseudoangiomatózna stromálna hyperplasia s obrovskými viacjadrovými bunkami: lézia ženského prsníka bez asociácie s neurofibromatózou?

SÚHRN
Nález obrovských viacjadrových stromálnych buniek v mamárnej pseudoangiomatóznej stromálnej hyperplázii bol v minulosti pozorovaný u pacientov s neurofibromatózou typu 1. Naznačoval, že sa môže jednať o morfologický marker svedčiaci pre neurofibromatózu. Prezentujeme prípad tohto nálezu u pacientky bez neurofibromatózy. Šlo o léziu ľavého prsníka u 39-ročnej ženy. Naše pozorovanie, spolu s ďalšími dvomi podobnými v literatúre, ukazuje, že pseudoangiomatózna hyperplázia s obrovskými bunkami v ženskom prsníku nemusí byť asociovaná s neurofibromatózou.

Kľúčové slová: prsník – viacjadrové obrovské bunky – pseudoangiomatózna stromálna hyperplázia – neurofibromatóza typu 1

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Pseudoangiomatous stromal hyperplasia (PASH) and stromal multinucleated giant cells (MGC) represent relatively rare findings in mammary pathology (1–3). They are benign, and when either is seen in isolation, they lack further clinical significance. However, a simultaneous finding of PASH and MGC in a single lesion was observed in mammary tissue in some patients with type-1 neurofibromatosis (4–6), indicating that PASH with MGC could represent a morphologic marker for this syndrome. Here, we present PASH with MGC occurring in the female breast in a patient without neurofibromatosis (NF). This case, along with two additional similar ones (7,8), shows that the previously mentioned association with neurofibromatosis is probably infrequent when PASH with MGC is found in the female breast.

MATERIALS AND METHODS

The excised tissue was fixed in 4% formalin and processed routinely. The sections were stained with hematoxylin and eosin. For immunohistochemistry, the following primary antibodies were used: alpha-smooth muscle actin (1A4), calponin (CALP), desmin (D33) (all from DAKO, Glostrup, Denmark), and CD34 (Qbend/10, NeoMarkers, Westinghouse, CA, USA).

Immunostaining was performed according to standard protocols using an avidin-biotin complex labeled with peroxidase or alkaline phosphatase. Microwave antigen pretreatment was used for immunoreactions with CD34, only. Appropriate positive and negative controls were applied.

CASE REPORT

A 39-years-old para 1 gravida 1 woman overcame mastitis in her lactation period 7 months ago. She continued to have mild pain, and therefore she underwent ultrasound examination. Ultrasound found a non-palpable hypoechoic lesion measuring 1 cm in the upper lateral quadrant of the left breast. The lesion was marked with Frank biopsy guide and excised completely. In addition, the patient was treated for mild chronic endometritis diagnosed five weeks ago.

Grossly, the excision measuring 3 x 3 x 2.5 cm had a fatty and fibrous cut surface without cystic changes. The fibrosis appeared to be accentuated in some foci, but no circumscribed or stellated lesion was found.

Histologically, the excision showed diffusely a pattern of PASH that involved both peri- and intralobular stroma (Fig. 1). Both a dense fibrous pattern with slit-like empty spaces and a more proliferative cellular pattern of PASH (2) were seen. Stromal MGC (1) were scat-

✉ ***Correspondence address:***
Dr. M. Zamecnik
Medicyt s. r. o.
Legionarska 28, 81171 Trencin
Slovak Republic
E-mail: zamecnikm@seznam.cz
Tel.: (mobil): +421-907-156629