

Breast invasive carcinoma with a choriocarcinomatous pattern

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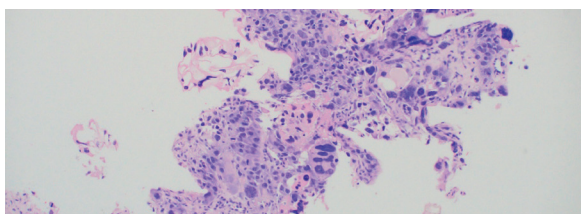


Figure 1. Core biopsy of breast carcinoma with a choriocarcinomatous pattern – both components of choriocarcinoma (cytotrophoblast-like and syncytiotrophoblast-like cells) are seen, staining H&E, x100 magnification

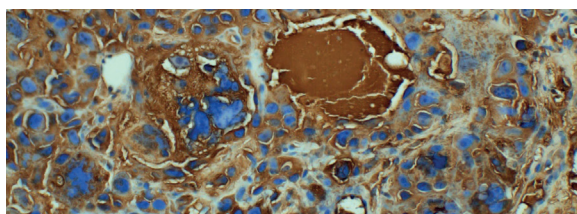


Figure 2. Core biopsy of breast carcinoma with choriocarcinomatous pattern – strong immunoreactivity for β -HCG in neoplastic cells, β -HCG immunostaining, x200 magnification

A 36-year old female was diagnosed with a breast infiltrating duct carcinoma, NOS, G2, luminal B *HER2*-neg, metastatic to the lymph nodes, lungs, liver and bones. She received ribociclib, fulvestrant and LHRH analog for 15 months with partial remission. For personal reasons the patient interrupted therapy for 4 months, but reported afterwards due to rapid progression. A core-biopsy revealed no presence of usual infiltrating duct carcinoma, but unequivocal choriocarcinomatous differentiation with mononuclear cytotrophoblast-like cells with hyperchromatic nuclei and multinucleated syncytiotrophoblast-like giant cells (fig. 1) and strong cytoplasmic immunoreactivity for β -HCG (fig. 2). Pathologist suggested either a rare variant of invasive breast carcinoma with a choriocarcinomatous pattern or metastatic choriocarcinoma to the breast. Metastatic progression was seen; pregnancy, as well as primary choriocarcinoma were excluded; total

β -HCG was 80,000 mU/ml. The patient received cisplatin plus etoposide with moderate clinical improvement and rapid decrease of β -HCG level. Invasive carcinoma of the breast with a choriocarcinomatous pattern is an extremely rare subtype of breast cancer listed in the WHO classification, with only few cases reported [1]. Systemic treatment was adjusted to the updated histopathological diagnosis. No optimal chemotherapy regimen is defined so far, and prognosis is unclear in advanced cases [3].

References

1. WHO Classification of Tumours, Editorial Board. Breast Tumours, 5th edition. International Agency for Research on Cancer, Lyon 2019.
2. Jun SY, Yoon N, An S, et al. Clinicopathologic and Molecular Characteristics of and Diagnostic Dilemmas in Invasive Breast Carcinoma with Choriocarcinomatous Pattern apropos a New Case: A Literature Review with New Findings. *Pathobiology*. 2022; 89(6): 359–369, doi: 10.1159/000522621.

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