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Breast invasive carcinoma with choriocarcinomatous pattern

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36-years old female was diagnosed with right breast infiltrating duct carcinoma, NOS, grade 2, luminal B HER-2 negative, metastatic to the lymph nodes, lungs, liver and skeletal system. Patient received systemic therapy with ribociclib, fulvestrant and LHRH analog for 15 months with partial remission. Patient for personal reasons interrupted therapy for 4 months. She reported shortly afterwards due to rapid local and systemic progression; locally there was 7 cm tumor in the right breast. Core-biopsy revealed no presence of usual infiltrating duct carcinoma, but unequivocal choriocarcinomatous differentiation with presence of mononuclear cytotrophoblast-like cells with hyperchromatic nuclei and multinucleated syncytiotrophoblast-like giant cells (fig. 1) with strong cytoplasmatic immunoreactivity for β -HCG (fig. 2). Pathology report suggested either rare variant of invasive breast carcinoma with choriocarcinomatous pattern or choriocarcinoma metastasis to the breast. Clinically progression with massive metastatic spread was seen; intrauterine or extrauterine pregnancy, as well as primary choriocarcinoma were excluded; total β -HCG was 80000 mU/ml. Patient received cisplatin plus etoposide every 3 weeks with moderate clinical improvement and rapid decrease of β -HCG level. Invasive carcinoma of the breast with choriocarcinomatous pattern is extremely rare subtype of breast cancer listed in WHO classification [1]. Up to date only a few cases were described. In this case, in accordance with the 5th ESO-ESMO guidelines for advanced breast cancer (ABC5), a re-biopsy of the tumor was performed. Histopathological re-evaluation revealed new biological features and transformation into breast invasive carcinoma with choriocarcinomatous pattern. Systemic treatment was adjusted to the updated histopathological diagnosis [2]. No optimal chemotherapy regimen is defined so far and prognosis is unclear in advanced cases [3].

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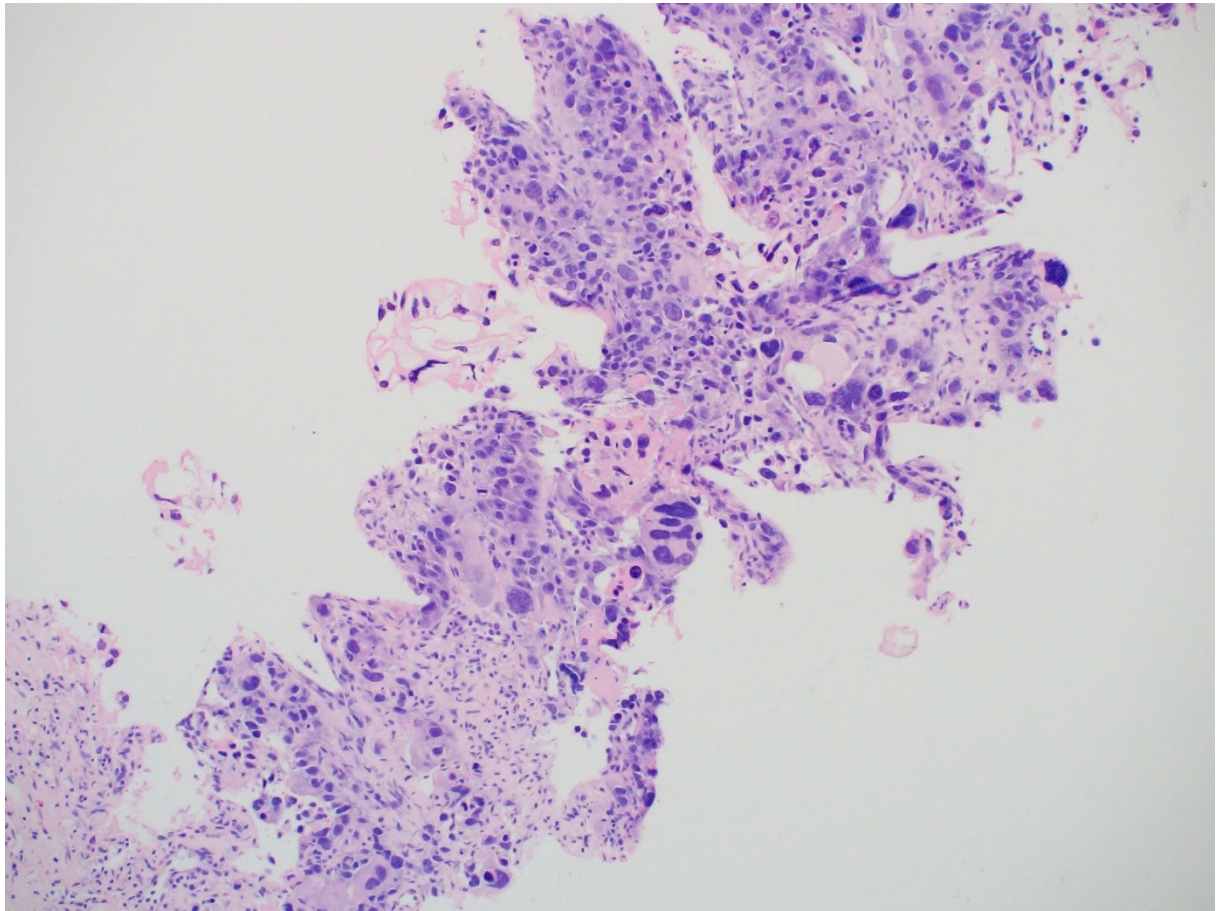


Figure 1. Core biopsy of breast carcinoma with choriocarcinomatous pattern – both component of choriocarcinoma (cytotrophoblast-like and syncytiotrophoblast-like cells) are seen, staining H&E, x100 magnification

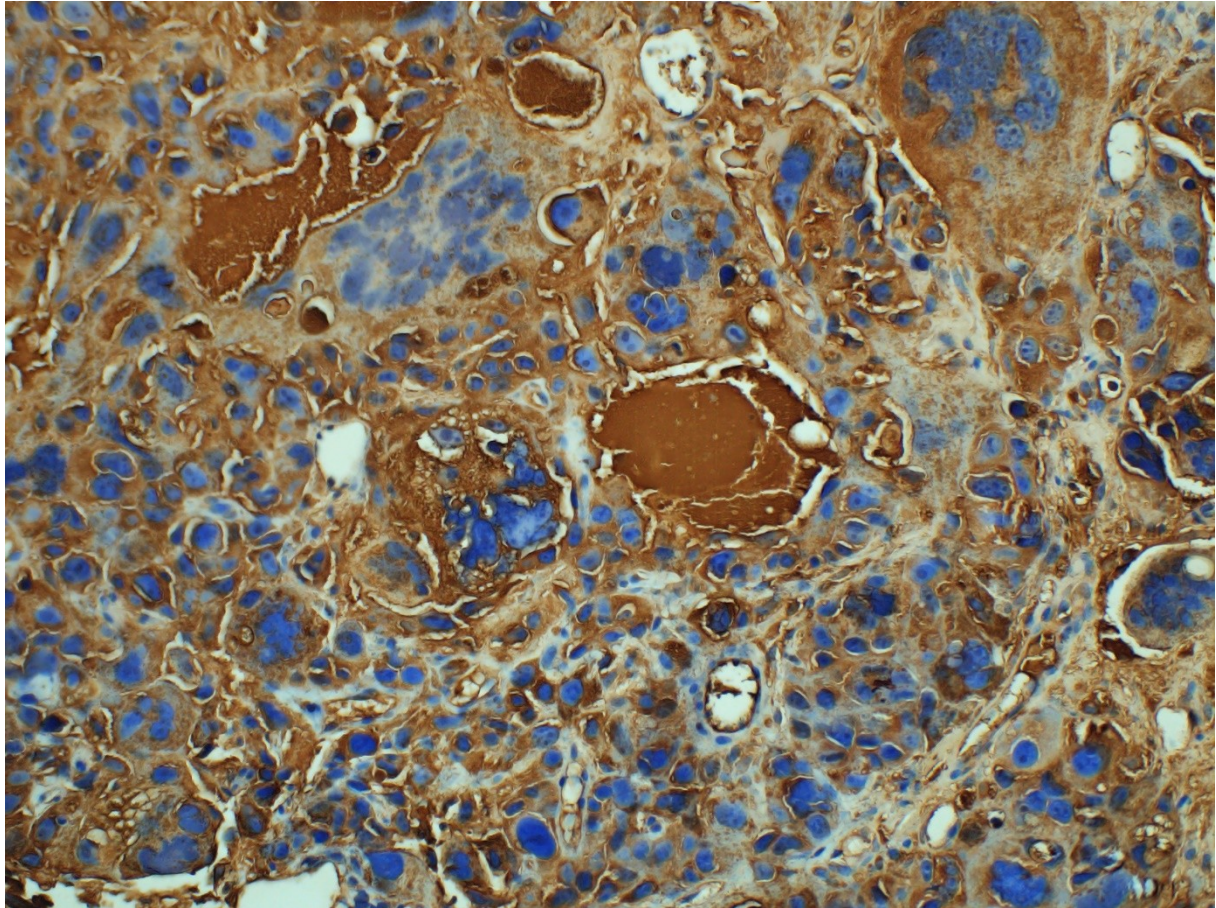


Figure 2. Core biopsy of breast carcinoma with choriocarcinomatous pattern – strong immunoreactivity for β -HCG in neoplastic cells, β -HCG immunostaining, x200 magnification