# breast cancer, early stage

**THE EFFECT OF THE LEVEL EXPRESSION OF A NUMBER OF MOLECULAR PARAMETERS ON THE ACHIEVEMENT OF PATHOLOGIC COMPLETE RESPONSE IN PATIENTS WITH TRIPLE-NEGATIVE BREAST CANCER, WHO RECEIVED CHEMOTHERAPY WITH CAPECITABINE**

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**Aim:** At present, there is quite an active search for parameters that would allow of more accurate prediction of achievement of pathologic complete response (pCR) in patients with operable triple-negative breast cancer (TNCB). It is based on the fact that only such a response to using neoadjuvant chemotherapy (NAC) may be associated with a benign outcome of the disease, similar to that of luminal tumors.

**Methods:** 70 patients with operable TNCB were tested; they received 2-4 courses of chemotherapy in the neoadjuvant mode, using CAX (capecitabine, doxorubicin, cyclophosphamide) scheme. All of the patients had their biopsy material tested so as to determine the expression levels of Ki-67, EGFR1, VEGFR-2 and thymidine phosphorylase (TP). For Ki-67 and TP, the low level of indices was assumed to be lower than 20%, the high level – more than 20%. For EGFR1, the low level was an index below 10%, the high level – 10% or more, for VEGFR-2 the low level was less than 70%, the high level – 70% or more.

**Results:** In the direct efficacy evaluation stage, the frequency of pCR amounted to 38%, partial response – 40%, stabilization and progression were observed in 15 and 7% of cases respectively. According to the results of the analysis undertaken, a higher number of pCR was observed in female patients with high proliferative activity levels (70%, \( p = 0.0000 \)). Also, the best response was associated with a high level of EGFR1 (79%, \( p = 0.0005 \)) and VEGFR-2 (74%, \( p = 0.01 \)) and TP (87%, \( p = 0.0007 \)).

**Conclusions:** As can be seen from the above, a high expression level of the molecular markers Ki-67, EGFR1, VEGFR-2 and TP can be considered as an additional informative predictive parameter in the evaluation of the achievement of pCR in patients with triple-negative breast cancer, who received chemotherapy with capecitabine. Research is supported by the President of the Russian Federation grandee (Contract 14.122.13.491 MD).

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