RESULTS OF THE STUDY OF BIOLOGICAL SUBTYPES OF BREAST CANCER

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Introduction. Identification of biological subtypes of breast cancer using immunohistochemical tumor markers: ER and RP receptor, Ki67, Her-2 / neu is a modern criterion for the development of optimal therapies for the breast cancer.

Materials and methods. The study object was breast cancer (BC) patients who were in hospital GKP on PVC «Cancer Center» Astana Akimat from February to September 2015. According to the purpose of the study, 77 primary patients aged from 35 to 78 years (mean 43 ± 6.7 years) were selected with localized and locally by regional forms of BC (pT1-4N0-2M0). Determination of the Her-2/neu, hormone receptors and Ki-67 was performed using rabbit monoclonal antibodies: c-erbB-2/HER-2 (SP3), estrogen receptor (SP1), progesterone receptor (SP2) and Ki-67 (SP6) (Springbio, USA), respectively. Unmasking epitopes carried on the PT-Link device (Dako Denmark).

Results. Most patients in our study show Her-2/neu - negative (0. 1+) forms of the tumor (n = 62, 75.6%), as compared to Her-2/neu - positive (3+) (n = 15, 18.3%). In 5 cases, Her-2/neu was (2+) (6.1%). Receptor positive is designated as the indicator (A) ≥3 points. Among all the tested tumor samples (n = 77), ER+ and PR+ were detected in 58 (75.3%) and 37 (48.1%) cases, respectively. Samples not containing ER and PR in the tumor tissue were 19 (24.7%) and 40 (51.9%), respectively. Study of expression of proliferation marker Ki-67 immunohistochemistry was performed in 77 breast cancer biopsies. The preliminary results of the study show that it is characterized by high proliferative activity (PA> 20%) than low (PA <20%) for the tumor tissue of breast cancer. These indices have the following arithmetic data - 62 (80.5%) and 15 (19.5%), respectively.

According to our data, in accordance with the classification criteria of St. Gallen (2013), biological subtypes of breast cancer were as follows: luminal A - 6.5%, luminal B, Her-2/neu - negative - 51.9%, luminal B, Her-2/neu- positive - 16.9 %, Her-2/neu - positive (non-luminal) - 9.1%, triple-negative (TNBC) - 15.6%, respectively. Thus, it should be emphasized that breast cancer is most often found in the luminal subtypes biological variations.

Conclusions. The preliminary results of our study suggest that breast cancer is characterized by: high proliferative activity, Her-2/neu-negative and ER positive tumor tissues options. The findings suggest that the heterogeneity of breast cancer.