



PROGRAM FOR SELECTION OF TREATMENT TACTICS AND CALCULATION OF SURVIVAL IN PATIENTS WITH BREAST CANCER

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SUMMARY

Information is presented on the creation and selection of treatment tactics programs based on the main criteria of risk categories: T, N, tumor receptor status (ER, PR), Her-2/neu status. Prediction of survival depending on the intended method of treatment, taking into account surgery (sectoral resection or mastectomy). Development of a graphical algorithm for the prevalence of the process and the choice of intervention tactics.

KEY WORDS: breast cancer, relevance, histogenesis, morphology, clinical symptoms, treatment, prognosis.

RELEVANCE

Breast cancer (BC) is a heterogeneous disease with various variants clinical course of the tumor process. In this regard, there is a need to choose treatment tactics taking into account not only the stage of the disease, but also the main prognostic factors factors. Surgery is the leading treatment for breast cancer. The result of surgical treatment of breast cancer largely depends on the choice of tactics. Maximum radicalism (mastectomy) with removal of the mammary gland, adjacent tissues and lymph nodes, was initially considered reasonable and guaranteed results.

However, over time, sectoral resection, preserving most of the mammary gland in combination with adjuvant chemotherapy (CT), hormonal therapy (HT) and radiation therapy (RT) gave no less encouraging results. However, currently no final opinion in favor of one or another tactic.

TARGET

Creation of a program for choosing treatment tactics based on basic criteria risk categories: T, N, tumor receptor status (ER, PR), Her-2/neu status. Prediction of survival depending on the intended treatment method, taking into account operations (sectoral resection or mastectomy). Development of a graphical algorithm prevalence of the process and choice of intervention tactics.

MATERIALS AND METHODS

375 case histories of patients operated on from 2021 to 2023 in the conditions of the Andijan branch of the Republican Specialized Scientific-Practical Medical Center for Oncology and Radiology . The stage of the process according to the TNM classification, tumor localization, and results were assessed. immunohistochemical analysis (ER, PR, Her-2neu), surgical tactics, type of adjuvant therapy, relapses, metastases and mortality.

The studied criteria were entered into a database and analyzed using logistic regression. The application is developed based on Microsoft Visual Studio using C programming language.

RESULTS

A computer program has been developed based on an algorithm with using logistic regression to predict 5-year survival among women after surgical treatment for breast cancer.

Surgical treatment options included radical resection and Madden mastectomy with lymphadenectomy, regardless of the type of intervention. The purpose of the program is forecasting 5-year survival rate and choice of surgical treatment tactics based on criteria risk.

CONCLUSIONS

The program we have developed allows you not only to control the process and predict the outcome of the disease, but, most importantly, helps make decisions on regarding the surgical treatment used. Our goal is to provide doctors universal application for accurate prediction of clinical outcome, as well as for assessing the impact of different treatment options on subsequent survival. It should be noted, that for the greatest accuracy of this program thousands of new clinical cases included in our database. But this is exactly what our program will ensure the opportunity to improve and produce even more reliable and accurate results.

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