IMMUNOTHERAPY FOR BREAST CANCER: NEW POSSIBILITIES

Koltunova M. O.
Scientific supervisor: ass. prof. Tsyvunin V. V.
National University of Pharmacy, Kharkiv, Ukraine
mary.matveeva2018@gmail.com

Introduction. Breast cancer is the most common cancer among women, impacting 2.1 million women each year, and also causes the greatest number of cancer-related deaths among women. Approximately 1 in 8 women (12%) will be diagnosed with invasive breast cancer in their lifetime and 1 in 39 women (2.5%) will die from breast cancer. According to WHO, in 2018 it was estimated that 627,000 women died from breast cancer. Lifetime risk is an average of risk for all women and accounts for deaths from other causes that may preempt a breast cancer diagnosis. Most (81%) breast cancers are invasive, or infiltrating, which means the abnormal cells have broken through the walls of the glands or ducts where they originated and grown into surrounding breast tissue. One of the promising areas in the neoadjuvant treatment of breast cancer is immunotherapy.

Aim. To analyze the experimental and clinical data dedicated to the advantages and disadvantages of medicines for immunotherapy of breast cancer.

Materials and methods. Google Scholar, PubMed, Medscape and Cochrane Library resources have been applied for search and analysis up to February 2020 using terms breast cancer and immunotherapy.

Results and discussion. Immunotherapy is revolutionizing the management of multiple solid tumors, especially with metastases. Standard neoadjuvant treatment of metastatic breast cancer is combining chemotherapy with immune-based therapy, which usually includes humanized monoclonal antibodies trastuzumab and pertuzumab that specifically binds to HER-2 (human epidermal growth factor receptor-2) homodimers. But in 2019 few clinical trials reports showed a pronounced activity of other immune-targeted medicines such as atezolizumab, durvalumab, pembrolizumab, avelumab, tremelimumab, ipilimumab in breast cancer therapy. Active immunotherapies (for example, cancer vaccines) also deserve special attention. Suitable and specific for breast cancer vaccines, which could evoke humoral and cellular immunity against this type of tumor, are now at different stages of the study.

Conclusions. The analysis of literature data convincingly shows the prospect of a further search and development of medicines for immunotherapy of breast cancer.

MODERN ASPECTS OF REVITALIZATION AT THE PROFILACTION OF THE PREMATURE AGING OF ORGANIZM

Misan B. S.
Scientific supervisor: assoc. prof. Rybak V. A.
National University of Pharmacy, Kharkiv, Ukraine
viktoriarybak2@gmail.com

Introduction. Extension of life of people is one of the most actual problems, which mankind facing. Aging of the main part of population of Ukraine is going on by pathologist, precocious variant.

Aim – to determine modern aspects of prevention of the premature aging of the organism, using anti-aging therapy, with applying stem cells.

Materials and methods. Stem cells are the primary basis of the organism, and all the 240 types of specialized cells and tissues of the body are formed of them. Stem cells energetically play the most important role – replacing (restoring) diseased and old cells of an aging organism, rejuvenating it, and no drugs are able to do it.