

Zastosowanie nowoczesnych biomateriałów w chirurgii onkoplastycznej u chorych na raka piersi.

^The use of modern biomaterials in oncoplastic surgery in breast cancer patients.

In response to patient concerns about breast cancer recurrence, increased use of breast magnetic resonance imaging and genetic testing, and advancements in breast reconstruction techniques, mastectomy rates have been observed to rise over the last decade. The aim of the study is to compare the outcomes of prepectoral and subpectoral implants and long-term, dual-stage resorbable mesh-based breast reconstructions in mutation carriers (prophylactic surgery) and breast cancer patients. This retrospective, two-center study included 170 consecutive patients after 232 procedures: Prepectoral surgery was performed in 156 cases and subpectoral was performed in 76. Preoperative chemotherapy was associated with more frequent minor late complications ($p < 0.001$), but not major ones ($p = 0.101$), while postoperative chemotherapy was related to more frequent serious ($p = 0.005$) postoperative complications. Post-operative radiotherapy was associated with a higher rate of minor complications (31.03%) than no-radiotherapy (12.21%; $p < 0.001$). Multivariate logistic regression found complications to be significantly associated with an expander (OR = 4.43), skin-reducing mastectomy (OR = 9.97), therapeutic mastectomy vs. risk-reducing mastectomy (OR = 4.08), and postoperative chemotherapy (OR = 12.89). Patients in whom prepectoral surgeries were performed demonstrated significantly shorter median hospitalization time ($p < 0.001$) and lower minor complication rates (5.77% vs. 26.32% $p < 0.001$), but similar major late complication rates ($p = 0.915$). Implant-based breast reconstruction with the use of long-term, dual-stage resorbable, synthetic mesh is a safe and effective method of breast restoration, associated with low morbidity and good cosmesis. Nevertheless, prospective, multicenter, and long-term outcome data studies are needed to further evaluate the benefits of such treatments.

Currently, many patients has been diagnosed with early breast cancer. Removal of the minimally required glandular tissue volume allows breast surgeons to preserve the proper shape of the breast and to achieve adequate margins. The aim of the study was to analyze data from a single-institution study with the use of Magseed marker for preoperative localization of non-palpable breast lesions. Day before surgery, ultrasound-guided placement of Magseed marker to the tumor has been performed. Before skin incision, the lesion has been localized with the use of intraoperative ultrasound and Sentimag probe. After the excision of the tumor, the presence of marker has been confirmed with the use of the magnetic method and ultrasound examination before and after surgery. 23 breast cancer patients were included in the study. Complete excision has been achieved in 20 patients (87%). To assess volume of the specimen and tumor, the mathematical formula of ellipsoid volume has been used according to Angarita et al. We compared cohorts of 11 patients at the beginning and at the end of the current study, showing that the learning curved improved. Thus, we could more precisely identify tumors and conserve healthy tissues, ameliorating cosmesis. The use of Magseed marker for the localization of non-palpable breast lesions seems to be a simple and effective method, and high detection rates translate into lower percentage of re-excisions after breast conserving surgery.

Following the Russian invasion, more than 3600000 refugees have fled Ukraine and settled down in Poland; this group includes a growing number of breast cancer patients whose treatment had been started in Ukraine and hence required urgent therapy in Poland. The aim of the study was to analyze the treatment of breast cancer patients from Ukraine, who entered

Poland as war refugees, with a special emphasis on their access to breast reconstruction. The treatment of 25 consecutive breast cancer patients, war refugees from Ukraine was reviewed retrospectively. Patients were treated according to subtype and staging, e.g. surgery, endocrine, anti-HER2 therapy, chemotherapy, radiotherapy. Seven patients received an immediate implant, mesh-based breast reconstruction which was covered by Polish health insurance. In two cases, the patients refused breast reconstruction. Nearly 5.5 million refugees across Europe who have fled the combat zones in Ukraine; of these, the vast majority sought shelter in Poland, and many of whom are women. While it is expected that breast cancer mortality rates will rise and progress in oncology will slow as the war in Ukraine disrupts patient care and research, oncologists and patients in Ukraine, and their counterparts from neighboring countries, continue to strive to win the war with cancer.