

**224P Synchronous and metachronous breast cancer in Ukraine**

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**Background:** This study aims to evaluate the current state of multiple primary malignant neoplasms (MPMN) in Ukraine and develop decision criteria for type of surgical treatment for these patients.

**Methods:** The study included 2,032 patients who received special treatment at the Department of Breast Tumours at the National Cancer Institute in 2008-2015. Among them there were 195 MPMN patients where 107 (54.9%) presented synchronous cancer (SC) and 88 (45.1%) presented metachronous cancer (MC). The average age of patients was 46.6, and the number of postmenopausal women was 63.1%. Among SC patients there were 60 (56.1%) with only breast localizations and 47 (43.9%) with combination of breast and other localizations (gynaecological etc.), and among MC there were 41 (46.6%) with only breast localizations and 47 (53.4%) with combination of breast and other localizations. All the patients were evaluated in terms of aggressiveness of the disease, survival rates, as well as risk factors and treatment options.

**Results:** The clinical course of the disease (CCD) in MPMN patients was worse in SC patients comparing to MC patients ( $p=0.00162$ ). A more aggressive CCD was observed in patients exposed to radiation from the Chernobyl accident ( $p=0.000798$ ). There was no influence on CCD of such factors as primary localization, type of special treatment, age and type of settlement. However, the impact of type of surgery was statistically proven, i.e. CCD in patients who underwent mastectomy was worse comparing to patients who underwent breast-conserving surgery ( $p=0.00048$ ). Plastic and reconstructive surgery in SC patients was statistically proven as reasonable increasing overall survival by 29% ( $p=0.015$ ). There was an influence of local recurrences on the overall survival in SC patients reducing it by 71% ( $p=0.033$ ), however, there was no influence in MC patients.

**Conclusions:** The MPMN patients have to get an improved attentive management and treatment. Medical and surgical oncologists should concern all the risk factors that have influence on CCD in these patients and provide the best option of management. The research in this area of oncology is open and this is crucial to continue researches for better outcome of these patients.

**Clinical trial identification:** The study is approved by the Commission on issues of ethics of the National Cancer Institute (Protocol No. 7 of 08.04.2010) and the Commission on issues of ethics of the Bogomolets National Medical University (Protocol No. 71 of 10.04.2013).

**Legal entity responsible for the study:** Bogomolets National Medical University, National Cancer Institute

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