
animalis VKB / *L. casei* IMV B-7280 (1:1:2) composition, once per day for 7 days. On the 9th day after probiotic bacteria injection, a peritoneal exudate fluid was obtained from the mice of all groups killed by cervical dislocation after complete anesthesia. The phagocytic activity of macrophages from peritoneal exudate fluid (PEM) was determined by the glass adherence method using latex beads (Sigma, USA). The PEM's phagocytic activity was estimated by phagocytic index (PI) and phagocytic number (PN). Respiratory burst activity (RBA) of PEM was evaluated using the nitro-blue tetrazolium (NBT) reduction test by cytomorphological method.

The weight of mice that obtained FED increased compared with mice that obtained standard diet, confirming the development of obesity. We observed that in mice that obtained FED reduced PI (20.0 ± 1.2 % against 31.5 ± 2.6 % in intact mice; $p < 0.05$) and PN (1.5 ± 0.6 against 4.0 ± 1.0 s.u.; $p < 0.05$) as well as increased spontaneous NBT-test indicators (65.0 ± 4.0 against 42.0 ± 4.3 % in intact mice; $p < 0.05$) of PEM compared with intact mice. The indicators of stimulated NBT-test of PEM from obese mice was 59.0 ± 8.0 %. In obese mice PR of PEM indicators was absent, because an excessive activation of PEM by NBT-test caused exhaustion of reserving abilities. The weight of obese mice that obtained these probiotic bacteria or probiotic composition decreased compared with obese mice that didn't obtain probiotic bacteria (control group). After receiving *L. casei* IMV B-7280 the PEM's PI and PN increased to 38.0 ± 4.2 % and 3.2 ± 0.1 s.u. respectively compared with control ($p < 0.05$). In mice, that received probiotic composition the PI did not change, but the PN increased to 3.8 ± 0.9 s.u. compared with control ($p < 0.05$). In mice that received *L. casei* IMV B-7280 or probiotic composition the indicators of spontaneous NBT-test increased to 34.0 ± 7.0 and 32.0 ± 2.0 % respectively and the indicators of stimulated NBT-test increased to 43.0 ± 5.0 and 42.0 ± 12.0 % respectively compared with control ($p < 0.05$). However, action of *L. casei* IMV B-7280 and composition returned it to the level of PR to 9.0 ± 3.0 and 10.0 ± 2.0 s.u. respectively. Normalization of PEM's functional activity in obese mice under the influence of these probiotic bacteria or probiotic composition can testify of their effective anti-inflammatory effect.

Thus, *L. casei* IMV B-7280 (separately) and *B. animalis* VKL / *B. animalis* VKB / *L. casei* IMV B-7280 composition are promising for creation of probiotic preparations for the prevention and treatment of obesity. However, to confirm these findings, requires further researches.

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**GENEALOGICAL ANALYSIS OF FAMILY FORMS OF BREAST CANCER
AND DETERMINATION OF THE COEFFICIENT OF HERITABILITY OF THE
DISEASE**

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Hereditary breast cancer is the most common type of family of tumor diseases. Its contribution in the overall incidence of breast cancer is about 5-10%. The "classic" varieties of hereditary

breast cancer are associated with high risk of ovarian cancer, so the medical literature usually uses the term “cancer syndrome breast and ovarian cancer”. The contribution of the hereditary breast cancer/ovarian in the overall incidence of ovarian tumors are even more pronounced: it is considered that at least 10-15% of ovarian cancer cases may be due to the presence of a genetic defect [Imyanitov, 2010]. Signs of hereditary cancer an early age, multiple primary neoplastic process, the patient has ovarian cancer. Due to several children from families in Ukraine, about half of the carriers of the mutation have a genetic history of cancer. This problem is compounded by the fact that hereditary breast cancer/ovarian cancer occur only in women because this syndrome is characterized by asymptomatic vertical transmission of mutations through the male line.

Hereditary breast cancer tends to be more aggressive than nonfamilial breast cancer. Women with a family history of breast cancer have a higher risk of developing breast cancer and are more at risk of developing breast cancer at a younger age than those without such a history. The degree of extra risk varies depending on, breast cancer was diagnosed among first degree relatives (parent, brother, sister or child), second degree relatives (e.g., grandparents, aunt/uncle, brother), or few family members. Having more than one first or second degree relatives with breast cancer increases the risk of breast cancer more than one such relative. The presence of at least two female first-degree relatives with breast cancer increases the relative risk of at least 2.8 times the risk is higher. When both parents are diagnosed with breast cancer, the risk for their daughter is increased tenfold [Lalloo F., Evans D.G., 2012]. The breast cancer risk is also inherited from his father part of the family. Most women with a family history of breast cancer are not carriers of the mutation gene for breast cancer. However, most family studies of breast cancer include the breast cancer gene carriers of the mutation, because they could not be excluded from the data

The aim of the study is genetic analysis of pedigrees with familial forms of breast cancer, determination of the coefficient of heritability of the disease and identification of risk factors.

According to the results of the survey of 47 patients of Kherson regional oncological dispensary of different ages and with different degrees of development (I-IV) breast cancer (BC) identified hereditary and non-hereditary forms of the disease. To hereditary cases of cancer in every generation, cancer cases through the generation and cancer cases only in the third (current) generation. For non-hereditary forms related hormonal disorders and spontaneous cases of the formation of tumors. Of the 47 respondents, 34 had a family history of cancer, which accounted for 72.3 percent. They have a cases of cancer of various organs has happened, or in all or in two generations, or only in one generation (brothers and sisters of the proband).

In the group of patients having cancers in all three studied generations included 22 women, which amounted to 46,81% of all respondents and 64.7% of all cases of hereditary forms of breast cancer.

We found that the overall risk of having a child with a predisposition to cancer in all studied families was 58.5% (193 healthy and 113 patients). For the group of patients with the disease through one generation coefficient of continuity was 0.56, indicating almost the same influence of genotype and environment on the development of breast cancer. In the group of patients with the appearance of cancer in the third generation of the sisters of probands were identified a strong correlation between hormonal disorders and frequency of disease ($r = 0,76$).