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CLINICAL MEDICINE: EXPERIENCE AND INNOVATION

INVESTIGATION OF DIFFERENTIAL FERTILITY IN THE CHERNIVTSI POPULATION

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In population genetics, differential fertility is considered as one of the components of natural selection [1, c. 522; 2, c. 1399]. The distribution of the number of pregnancies and their outcomes in women with a completed reproductive period was studied in the Chernivtsi population. It was surveyed 216 women with a

diagnosis of menopause. They were divided into two generations because of age. Intergenerational step was taken 20 years. The indexes of the potential selection of J. Crow associated with differential fertility was calculated [3, c. 220-230; 4, c. 1221].

Average, 4% of Chernivtsi residents did not contribute to the gene pool of the next generation. In the first generation, the proportion of such women was higher (4.1%) than for women of the second generation (3.6%, $p>0.05$). For first generation the number of women giving birth has not changed significantly: 95.9%, in the second – 96.4%. At the same time, the proportion of women who resorted to the artificial termination of pregnancy decreased significantly. If in the first generation there were about 16%, then in the second generation it was almost twice as much – 30.5% ($p<0.05$). Spontaneous abortion was noted by about 19% of women from the entire sample, and only three indicated ectopic pregnancy, which in the first generation was 2%, in the second – 1.2%. The second-generation woman had stillbirths, which in the percentage ratio was 1.8 of all births. Women from the first generation did not have fet-born children. Half of the pregnancies were artificially interrupted by women from the first generation (50.9%) and about 40% by women from the second generation ($p>0.05$). The share of zygotes in the second generation increased in comparison with the first generation (50% vs. 43%).

In the first generation Chernivtsi women had 4.7 pregnancies for the reproductive period, in women of the second generation this indicator was lower and is 3.7 ($p<0.05$). For one woman of the first generation, there is an average of more than two medical abortions (2.4), in the second generation this indicator decreased to 1.5, which also has a statistically significant difference. The first-generation woman accounts for about 0.2 spontaneous abortions and 0.08 ectopic pregnancies. These indicators for women of the second generation are different: the number of spontaneous abortions increases to 0.34, and the number of ectopic pregnancies, on the contrary, falls to 0.01. The woman of the first generation had an average of two births, in the second generation this indicator decreased to 1.9. Cases of stillbirth were registered only in the second generation and averaged 0.3 for one Chernivtsi woman. This indicator increased not only absolutely, but also relatively, amounting to 1.6% of the total number of births. Between generations, the modal classes did not differ in the number of pregnancies (3.0), and in live births and all births (2.0 for both indicators). But in the first generation, the bimodality of the distribution of the number of medical abortions was noted, peaks accounted for 1 and 3 abortions, respectively, while for women of the second generation the modal class for this indicator was 0 for medical abortions.

Comparison of the reproductive characteristics of Chernivtsi women from two adjacent generations showed that, in general, their dynamics is in line with global

trends in world, manifested in the reduction in birth rate due to its artificial regulation.

The index of total selection in generations of Chernovtsy women has significantly decreased from 2.1 to 0.43. The decrease in selective selection was due to the decrease in the component I_m . This selection component associated with mortality in the first generation which is 15 times higher than in the second (0.15 and 0.01, respectively). That is 5.9 and 2.3% of the value of the index of total selection. Accordingly, the differential fertility of second-generation women has increased, which can be associated with improving the quality of medicine and maintaining large numbers of pregnancies with various pathologies.

Based on the conducted study, it can be assumed that in the studied population the value of natural selection at prenatal stages in ontogeny, and selection related to infertility is preserved.

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