The Problems of the Health of Women-Repatriates of Reproductive Age

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Abstract: High rates of morbidity and pregnancy complications among women, who changed their permanent residence, have encouraged us for extended study of the existing problems. The specific ecological and geographical conditions of the South Kazakhstan region complicate the adaptation of women-repatriates causing the diseases affecting their reproductive function. The rate of the birth of the premature babies, children with low birth weight, perinatal mortality and mortality of children of early age is higher among women-repatriates compared with local women. The current situation should be considered as a reaction of the woman’s organism to adaptation to the new ecological and hygienic circumstances.

Key words: Migration process • Reproductive health • Women-repatriates • Adaptation

INTRODUCTION

The international organization on migration considers Kazakhstan to one of the countries with the intensive migration. It is assumed that the scale of migration processes in Kazakhstan will grow and affect the political and socio-economic situation [1].

At the same time, the migration creates the problems in the medical and demographic situation. This is related to the adaptation of migrants to the new environmental, economic, social and household conditions. The change in the gene pool, the relationships of migrants with the local population, delivery and spread of infections require the urgent preventive measures by the local authorities [2].

As a result of change of residence, the vulnerability of migrants increases with health risks and expose them to potential danger due to high stress caused by introduction to the new environment.

To coordinate the strategies, policies and measures aimed at improving of the health of different subgroups of migrants and protection of their health, the sixty first meeting of the World Health Assembly had adopted the basic principles of the approach to the health of migrants from the position of the public health [3].

The data received by numerous scientists show the negative impact of the environmental factors on the reproductive health of women and their children. The high frequency of reproductive pathology, complications of pregnancy and childbirth in ecologically unfavorable regions, including the negative impact of high mineralization waters have been revealed [4].

According to Harlem Brundtland, the General Director of the World Health Organization, “globally, women of reproductive age lose more than 20% of health due to three main reasons characterizing the conditions of the reproductive health: sexually transmitted diseases, including HIV/AIDS, maternal mortality, morbidity and cancer of the reproductive organs, moreover, the women-migrants suffer the disproportionate impact” [5].

According to numerous authors, the depth of the adaptation is closely related to geographic and climatic conditions of former residence places and the peculiarities of the ecological situation in South-Kazakhstan region [6]. Especially harmful environmental conditions for the women migrants complicate the adaptation causing the infectious diseases of the urine-genital system along with other diseases that affects the reproductive function. The rate of the birth of the premature babies, children with low birth weight, perinatal mortality and mortality of children of early age is higher among women-repatriates compared with local women [7].

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It is noted that the women arriving from Republics of Uzbekistan, Tajikistan and Turkmenistan relatively easy adapt to the new conditions. This is explained by the high thermodynamic mechanism of former residents of Central Asia [8, 9].

**Experimental:** One of the goals of this study is to investigate the peculiarities of the health of infants and women migrant of reproductive age.

In order to perform the objectives, the women migrants have been surveyed. The questionnaire included the questions of the health conditions before, during and after migration, the reasons negatively affecting the health. Along this, we have used the conclusions of the therapist and the obstetrician-gynecologists assessed the health of women-migrants.

The data on health and morbidity of infants and newborns were collected using the surveys of mothers, medical data received from the pediatricians and in the patient cards of children.

**General:** The data received in the study have showed that the part of women avoiding unwanted pregnancies reached 38.9% and 12.3% of them use the preventive means.

The assessment of the reproductive condition of women in different periods showed that the abortion before the migration is lower than during migration and the period of resettlement.

It is known that the reproductive function is rapidly changing affected by the environment [10]. This is evident from the differences in the data received in different groups of local women and migrants in the period 1991-2001 and compared with the migration data of 2006-2011.

Dynamics of deviations in the reproductive function and its level at the new place of residence of women-migrants shows that these functions are evidently affected by local environmental and hygienic conditions. Thus, the data on complications among groups of local women were significantly higher compared to women-migrants before the migration \((p_1-p_2<0.05)\). Moreover, the cases of complications among local women were significantly higher \((p_1-p_2<0.001)\) and level of appeared complications of reproductive function of women-migrants in the new settlement \((70.3 \pm 6.5)\) was approximately equal to the same index for local women \((68.8 \pm 4.9)\). Therefore, long-term adaptation to the new conditions has an evident impact on the reproductive function and increase in cases of complications. Thus, the level of complications of the reproductive system of women-migrants in the new place in the period 2006-2011 was significantly higher than before migration \((p_2-p_3 <0.05)\). It was determined that a significant difference between the data on the complications is directly related with anemia and complications during the second trimester of pregnancy.

Toxicosis \((34.2\%)\) and anemia \((17.2\%)\) leaded among pregnancy complications before migration and the their simultaneous manifestation were observed in 7.8% of cases. The threat of premature births was high \((8.0\%)\).

These regularities have also maintained during migration. The part of women with anemia reached 24.7% and simultaneous anemia with toxicosis increased up to 9.4%. The threat of premature births increased until 10.2%. It should be noted that the part of women with toxicosis during migration \((34.2\%)\) significantly decreased comparing with period before the migration.

Studying the three periods, the occurrence of complications during pregnancy increased from 59.5 to 70.3%.

The occurrence of anemia increased by 32.0%, toxicosis by 35.0% and cases of simultaneous anemia with toxicosis by 10.9% after migration. These results have shown that the migration and adaptation to the new residence is entailed by numerous pregnancy complications in women of reproductive age. In particular, the migrants on the territory of the South Kazakhstan were affected by hazardous microelements contained in drinking water.

This fact affects the health of women. The drinking water sources in this region can be divided into three groups. The studies have shown that water mineralization is hardly belonging to the class of sulfate chloride. The total mineralization is 2.9-3.05 g. Thus, the quality of fresh and relatively drinking water are similar.

The studied women of reproductive age were divided into three groups according to composition of the intake drinking water. Women of the first group used highly mineralized drinking water, women of second group used the fresh water and women of the third group used drinking water with optimal mineral composition.

Composition of each group were equal in the climate, household and labour conditions, leisure, availability of medical care and duration of residence in the local conditions. The age composition of all groups was as the following: women up to 20 years-2.5%, 21-30 years-26.0-32%, women until 31-40 years-35.8-42.9% and between 41-50 years-25.3-27.0%. A greater part of the studied women occupied the new place for more than 5 years.
Menstruation period of the women has been investigated using the data collected over 3 years. Reproductive functions of women were identified using the data provided by the maternity hospitals and antenatal clinics. The health of the newborns was evaluated using the Apgar score and the weight of newborns, duration of stay in hospital and the recovery period of the initial weight.

Comparison of the menstrual function has revealed the complications in women of reproductive age in the first group i.e. used highly mineralized drinking water. The women in this group characterized by prolonged and the menstrual period with abundant discharges (p< 0,001). The irregular menstrual period were observed in all groups. The part of women, which menstrual cycle changed from normal to prolonged has increased (p< 0,001).

Among them women in the first group, the menstrual failures occurred more often (68,17 ± 2,83 %, p<0,001) and come of these characterized by hypomenstrual syndrome (32,63 ± to 2.82 %, in the comparison group 11,01 ± 3,12 %, p<0,001). Other types of menstrual pathologies, including hypomenstrual syndrome and algodismenorrhea often were diagnosed women used highly mineralized drinking water.

The conditions of reproductive function shows that pregnancy of women using highly mineralized drinking water is lower (5,84 ± 0,19 %, p<0,05) comparing with other groups (in second group- 6,29 ± 0,34, in third group-6,68 ± 0,36 %). The spontaneous preterm birth and pathologies of pregnancy among women in the first group occur more often than in other groups.

The childbirth of women in the first group has entailed by numerous complications such as premature discharge of amniotic fluid, pregnancy complications, abnormal bleeding and others. It should be noted that assessment of health of infants in the early neonatal period is extremely important and relevant. High mineralization of drinking water have a negative impact on pregnancy of local women, but particularly negatively influence the pregnancy of women migrant. The study of the pregnancy of women before migration showed that the occurrence of pregnancy pathologies per 100.000 women was 7,88 ± 0,64 % and there were no significant differences after migration (8,04 ± 0,62 %). Settlement in the new place and the prolonged use (2006-2011) of highly mineralized drinking water is the dangerous for the pregnant women and increases the incidence of complications (10,65 ± 0,81; p>0,001).

**CONCLUSIONS**

The investigated data indicate that the group of local women investigated in 1991-2001 and 2006-2011 have unchanged, but characterized by a high level of complications (9,88 ± 0,72; 9,79 ± 0,83; 9,91 ± 0,86). However, the complications of pregnancy in groups of local women were more frequent than in the groups of women migrants before and during migration (7,88 ± 0,64; 8,04 ± 0,62). The obtained results show that the settlement of women-migrants in areas with highly mineralized drinking water is extremely dangerous for their pregnancy. These complications reveal mostly as anemia and toxicosis during pregnancy and preterm birth. The frequency of anemia among women-migrants in the new places (2,82 ± 0,12) increased by 37,5 % comparing with the data received before migration (2,05 ± 0,09), the level of toxicosis by 25,6 % (from 5,15 ± 0,34 until 6,47 ± 0,55) and the level of preterm births by 67,6% (from 0,68 ± 0,02 until 1,14 ± 0,08). The pregnancy complications of local women remained at a high level.

**REFERENCES**


