

Research Article

Peculiarities of Psychoemotional State in Pregnant Women with Oligohydramnios

Irina Basiuga

Abstract

Oligohydramnios is an obstetric pathology being one of the most common perinatal diseases. In 70% of cases, its causes are unclear which requires further improvement of diagnostics and treatment tactics.

The objective of the research was to examine psychoemotional state in pregnant women with oligohydramnios.

Materials and methods. 120 pregnant women with oligohydramnios diagnosed at 27-29 weeks of gestation were examined. The control group included 30 somatically healthy women with physiological course of pregnancy. Psychoemotional state of women was evaluated using the survey and the scale proposed by S.D. Spilberg and adapted by Yu.A. Khanin.

Results. When studying psychological peculiarities, we did not reveal reliable differences in the level of trait anxiety between women with oligohydramnios and pregnant women without it. Moreover, there was observed a similar division of patients by the low, medium and high levels of this indicator among patients of both groups. However, the analysis of the obtained data showed the increase in the level of state anxiety in the main group (43.28 ± 1.36 points) compared to the control one (35.30 ± 2.22 points, $p < 0.01$). Among women with oligohydramnios, an increase in the proportion of individuals with a high level of this parameter ($p < 0.01$) as well as a decrease in the proportion of individuals with a low level of this parameter was observed.

Conclusions. The level of trait anxiety in pregnant women with oligohydramnios did not differ from that in healthy women and corresponded to the average value, while the level of state anxiety which corresponded to the average values as well, significantly increased compared to pregnant women with physiological gestation ($p < 0.01$). Among this category of patients, a statistically significant increase in the proportion of individuals with a high level of this parameter was observed ($p < 0.01$).

Keywords

pregnancy; oligohydramnios; psychoemotional state

Ivano-Frankivsk National Medical University, Ukraine

*Corresponding author: irusja.b@ukr.net

Problem statement and analysis of the recent research

The priority principle of modern obstetrics is the fetus and mother protection. Oligohydramnios is an obstetrical pathology, the rate of which is constantly growing. According to the data of foreign researches, it has a direct influence on the increased number of operative delivery, perinatal morbidity and mortality [3, 7]. Difficult economic situation, the instability of social and living conditions on the one hand and the increased percentage of infertile couples, habitual miscarriage, frequency of obstetric complications, extragenital pathologies in pregnant women on the other hand contribute to the development of psychoemotional disorders in the couple, a woman in particular.

According to literature data, gestation contributes to nervous and psychological changes in 70% of women [1]. Gestational dominant may induce not only physiological changes in the organism of pregnant woman. It is often accompanied by ambivalent feelings towards future motherhood, emotional lability, irritability, as well as an emotional stress concerning the development of a child, the state of own health, course

of future delivery [2]. These feelings are a normal reaction to such profound changes in the woman's organism, which cannot be compared with anything; rethinking of her priorities, social status [4]. In case of optimal attitude to pregnancy, support of the child's father and relatives, favorable situation for prolongation of gestation irrespective of its course as well as an intuitive connection with the unborn child is formed.

The objective of the research was to examine psychoemotional state in pregnant women with oligohydramnios.

1. Materials and methods

The research was carried out in Ivano-Frankivsk Clinical Maternity Hospital. 120 pregnant women with oligohydramnios diagnosed at 27-29 weeks of gestation were examined (the main group). The control group included 30 somatically healthy women with physiological course of pregnancy. Oligohydramnios was diagnosed based on complete physical examination of pregnant women at 27-30 weeks using the amniotic fluid index (AFI). Exclusion criteria were the presence of congenital fetal malformations, severe extragenital pathology, premature rupture of amnion, neuropsychiatric disorders

at the time of the survey.

The level of anxiety was determined using the scale proposed by S.D. Spilberg and adapted by Ya.A. Khanin, which is made up of two subscales: trait and state (reaction) anxiety [5].

For statistical analysis of the obtained data Statistica 6.0 was used. The arithmetic mean and standard deviation were calculated based on quantitative data. Relative values (the frequency of features per 100 surveyed persons) and its errors were calculated based on Microsoft Excel programs for categorical (or qualitative) data. The reliability of difference was determined using the Chi-square test. The difference between compared values was considered statistically significant at $p < 0.05$.

2. Results and Discussion

The average age of women did not differ statistically between groups being 27.23 ± 0.76 in the control group, and 27.12 ± 0.44 in the main one. The majority of patients was married – 28 ($93.33 \pm 4.55\%$) persons with physiologic gestation, 107 ($89.17 \pm 2.84\%$) persons with oligohydramnios. 2 ($6.67 \pm 4.55\%$) healthy pregnant women and 9 ($7.50 \pm 2.40\%$) women with oligohydramnios women were not married. 4 ($3.33 \pm 1.64\%$) pregnant women in the main group were single or divorced ($p < 0.05$).

When studying reproductive history and peculiarities of the course of pregnancies, we did not reveal reliable differences in the indicators of obstetric history between the control group and the main one. Among women with oligohydramnios, 48 ($40.0 \pm 4.47\%$) women were primigravida and 72 ($60.00 \pm 4.47\%$) women were multigravida. The similar trend was observed in group of patients with physiological gestation – 13 ($43.33 \pm 9.05\%$) women were primigravida and 17 ($56.67 \pm 9.05\%$) women were multigravida. However, we paid attention to an increased number of abortions among patients of the main group – 32 ($26.67 \pm 4.04\%$) cases in the main group compared to 4 ($13.33 \pm 6.21\%$) cases in the control one. In most cases, premature spontaneous miscarriages were observed – 18 ($15.00 \pm 3.26\%$) cases compared to none cases among women without oligohydramnios ($p < 0.01$). The number of artificial abortions coincided in two studied groups – 14 ($11.67 \pm 2.93\%$) pregnant women in the main group and 4 ($13.33 \pm 6.21\%$) pregnant women in the control one. It should be noted, that among women, who had an induced termination of pregnancy, in 5 ($4.17 \pm 1.82\%$) women with oligohydramnios the indication for it was an attempted abortion, while among healthy patients there were no such cases ($p < 0.05$).

When studying psychological peculiarities, we did not reveal reliable differences in the level of trait anxiety between women with oligohydramnios and pregnant women physiological course of pregnancy. In women with oligohydramnios it was 39.47 ± 1.11 points, in pregnant women physiological course of pregnancy it was 37.13 ± 1.87 points. Moreover, there was observed a similar division of patients by the low,

medium and high levels of this indicator among patients of both groups. In particular, about half of the patients had the moderate level of trait anxiety – 14 ($46.67 \pm 9.11\%$) healthy pregnant women and 57 ($47.50 \pm 4.56\%$) women with oligohydramnios; one third of the patients had the high level of trait anxiety – 11 ($36.67 \pm 8.80\%$) persons in the control group and 39 ($32.50 \pm 4.58\%$) persons in the main group. The low level was observed in 5 ($16.67 \pm 6.80\%$) and 24 ($20.00 \pm 3.65\%$) patients, respectively.

However, the analysis of the obtained data showed the increase in the level of state anxiety in the main group (43.28 ± 1.36 points) compared to the control one (35.30 ± 2.22 points, $p < 0.01$). Among women with oligohydramnios, an increase in the proportion of individuals with a high level of this parameter ($p < 0.01$) as well as a decrease in the proportion of individuals with a low level of this parameter was observed. Thus, the percentage of women with a high level of state anxiety among women with oligohydramnios (50 ($41.67 \pm 4.50\%$) women) was higher than among healthy pregnant women (7 ($23.33 \pm 7.72\%$) persons, $\chi^2 = 9.26$, $p = 0.002$). The number of women with a low level prevailed in the control group (12 ($40.00 \pm 8.94\%$) pregnant women) compared to the main one (35 ($29.17 \pm 4.15\%$) persons). A similar trend in a medium level of anxiety was observed in both groups – 11 ($36.67 \pm 8.80\%$) and 35 ($29.17 \pm 4.15\%$) women, respectively.

The studies of motherhood psychology allows us to conclude that the state of pregnancy is one of the most important stages in a woman's life being the starting point in her development as a personality and mother. When analyzing Ukrainian and foreign literature [1, 3, 6, 7], some data on the features of emotional state in certain pregnancy pathologies (congenital disorders of the fetal central nervous system, maternal hypertension, neuroendocrine disorders) were obtained demonstrating the increase in anxiety, psychoemotional liability and psychological dysadaptation in such patients. We did not found any scientific publications concerning the study of emotional state of pregnant women with oligohydramnios.

3. Conclusions

1. The level of trait anxiety in pregnant women with oligohydramnios did not differ from that in healthy women and corresponded to the average value.
2. In women with oligohydramnios, the level of state anxiety which corresponded to the average values as well, significantly increased compared to pregnant women with physiological gestation ($p < 0.01$). Among this category of patients, a statistically significant increase in the proportion of individuals with a high level of this parameter was observed ($p < 0.01$). Such peculiarities of psychoemotional state of pregnant women with complicated course of gestation may also be the basis for complicated course of delivery due to disorders of psychological adaptation to pregnancy.

4. Prospects for further research

We consider it reasonable to study the peculiarities of psychological state of pregnant women with other complications of gestation with the purpose of developing programs of psychological correction.

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