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TO THE QUESTION OF EARLY NEONATAL MORTALITY

¹Suverneva A.A., ²Shramkova I.A., ¹Baymukhanova G.N.

¹Astrakhan State Medical Academy, Astrakhan, Russia (414000, Astrakhan, street Bakinskaya, 121), e-mail: agma@astranet.ru.

²Clinical maternity hospital, Astrakhan, Russia (414000, Astrakhan, street Akhsharumova, 82), e-mail: shramkova.krd@yandex.ru

Summary

We present the results of analysis of the dynamics and main tendencies of early neonatal mortality in Astrakhan for 2001-2010. We identified maternal risk factors of early neonatal losses. The city early neonatal mortality decreased. Our studies show the increase the share of full-term babies who died in the early neonatal period. The most important risk factors of early neonatal losses were recognized, such as the low social status of patients, early sexual debut, complicated obstetric and gynecological anamnesis, polyhydramnios, threat of pregnancy interruption, preeclampsia of varying severity, chronic placental insufficiency and the presence of genital infection, followed by intrauterine infection of the fetus.

Key words: early neonatal mortality, preeclampsia, placental insufficiency, intrauterine infection.

Introduction. Analysis of the statistics for 2001-2010 indicates a steady decline in early neonatal mortality as the Russian Federation as a whole (with 6,2 % to 2,8 %), and by federal districts [1,3,4]. However, the rates of decline of this indicator are different and the lowest level of decline (11.1%) observed in the Southern Federal District [4]. In addition, in areas with different levels of early neonatal mortality, there are differences in the causes of death from both the mother and the fetus [2,4]. In the structure of maternal causes of early neonatal losses in the Russian Federation since 2005-first-th rank place occupies the category «reason not set» [2,5].

Aim. To study the dynamics and main tendencies of early neonatal mortality in Astrakhan for 2001-2010, determine risk factors of early neonatal losses.

Materials and methods. We conducted a retrospective analysis of annual reports information about care for pregnant women, women during and after childbirth in Astrakhan Clinical Maternity Hospital for the period 2001-2010. We have performed a retrospective study of 60 childbirth histories of women with early neonatal death of a child, 60 histories of born, who died in the early neonatal period, histological findings of 60 placentas and 60 medical certificates of perinatal death.

Results and discussion. Retrospective analysis showed, that early neonatal mortality in Astrakhan decreased by 4.2 times for 10 years (from 9,3 % in 2001 to 2,2 % in 2010). However, the proportion of full-term children, who died in early neonatal period, increased by 3 times (61% in 2010).

Analysis of risk factors for early neonatal losses indicates that patients aged 23 to 25 years (25.4%) predominated in this group. Mean age of patients - $23,4 \pm 0,67$. Percentage of pregnant women aged 15 to 19 years (19%) was quite high. Housewives and socio-employed women in the study group were equal (50%). Patients with a high school education prevailed among women with early neonatal death of child (47%). Only one fifth of women was not under medical supervision for pregnancy. Patients were officially registered marriage in 62% of cases.

Smoking among surveyed was 16%, using drugs and alcohol is not revealed. Early sexual debut was present in 57% of patients. 26% of women had a history of two or more artificial abortion and miscarriage occurred in 24% of cases. Respiratory diseases were diagnosed in 17% of patients, cardiovascular pathology - 10%. In 62% of cases the pregnancy was accompanied by anemia (anemia of 2 and 3 degrees was 21%). Acute respiratory viral infection was detected during gestation in 27% of cases, pyelonephritis - 10%. 52% of pregnancies complicated by preeclampsia varying severity, 63% - threat of pregnancy interruption, 17% - oligohydramnios, 37% - polyhydramnios. Inflammatory diseases of the genitals were diagnosed in 39% of cases: vaginitis (47%), chronic adnexitis (31%), bacterial vaginosis (19%), chlamydia (8%). Pregnancy was symptoms of chronic placental insufficiency in 73% of patients, mainly in the background circulatory and dystrophic changes in the placenta (69.8%). Histological examination of placentas revealed: basal deciduitis (33%), productive villuzitis (16%), intervilluzitis (7%), placental chorionitis (31%). Intrauterine infection of the fetus was observed in 59% of cases of early neonatal losses.

The leading cause of early neonatal death - respiratory failure (76%), developed on the background of congenital pneumonia (45%), hyaline membrane disease (11%) and their combination (20%). In 18% of cases the cause of death was asphyxia newborns. Congenital malformations were 4%, birth trauma - 2%.

Conclusions. As can be seen, the indicators for Astrakhan are not significantly different from those in Russia. Reduction of early neonatal mortality was in many respects due to improved neonatal services. However, a 3-fold increase the share of full-term children, died in the early neonatal period, a high percentage of intrauterine infections inhibit the growth rates of decline early neonatal losses in our region. Thus, the most important risk factors of early neonatal losses are the low social status of patients, early sexual debut, complicated obstetric and gynecological anamnesis, anemia, polyhydramnios, threat of pregnancy interruption, preeclampsia varying severity, chronic placental insufficiency and genital infection, followed by intrauterine infection of the fetus.

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