



## RESULTS OF SCIENTIFIC STUDY OF SOCIAL AND BIOLOGICAL PERINATAL PATHOLOGY RISK FACTORS

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### ABSTRACT

The article presents results of scientific study of social and biological risk factors for perinatal pathology. We investigated families raising children with perinatal lesions of the central nervous system and gave medico-social characteristics of them. We highlighted issues of need to develop and implement health-organizational technologies to optimize the quality of care for pregnant women at risk, infants and children of the first three years of life, in order to reduce perinatal morbidity and mortality, prevention of disability in childhood.

**Keywords:** social and biological factors, pregnant women are at risk, newborns, children of the first three years of life, medical and organizational technologies, prevention of perinatal pathology, morbidity, mortality and disability reducing.

### INTRODUCTION

In recent decades, the continuing negative trends in the health status of the population, which requires a continuation of health care reform and in the process of making the necessary adjustments [1,4]. In a further reduction of the projected population of Russia the most important problem of population policy and a necessary condition for ensuring the national security of the country is to increase the birth rate and maintaining the health of women and children [7,8]. Current demographic and socio-economic situation calls for improvement of obstetric care, optimizing health care for pregnant women and newborns to reduce perinatal pathology, prevention of disability in childhood.

The system of continuous prevention of perinatal pathology and its consequences occupies an important place to identify risk factors and their elimination at the stages of pregravid preparation, antenatal, intrapartum, neonatal and post-neonatal period [3,5]. Perinatal pathology and its effects are influenced by social and biological factors. It is considered as proven multiplicity of reasons, which may act directly or indirectly, in isolation or in a complicated pattern. [8] The importance of factors that have the greatest influence on the formation of children's health, changes in different periods of childhood [2,6,9].

**The aim of our study** was to determine the medical and social characteristics of families and the identification of the role of risk factors for perinatal pathology in the cohorts studied, which will continue to develop based on their medical and organizational technologies provide high quality and efficient health care for women, newborns and children the first three years of life with perinatal pathology and disabled children.

### MATERIAL AND METHODS

The study was conducted on the basis of the regional State Organization "Perinatal Center" of the Ministry of Health of the Khabarovsk Territory. We have studied the social and biological history of 40 parents of children with CNS PP moderate at birth observed in the department catamnesis Perinatal Center (II group) and 100 parents of children with mild CNS PP (I group). For this purpose, method of copying data from individual cards child development, interviewing and questioning the parents. We studied the social and biological factors of mothers (fathers) of children with perinatal CNS lesions with varying degrees of severity at birth. We analyzed family factors, such as marital status of parents, living conditions, material conditions, the nature of family relationships.

### RESULTS AND DISCUSSION

The analysis revealed that mothers of group II than I at the time of birth of a child often are aged from 35 to 40 and younger than 18 years, at least - from 19 to 28 years. Among them there were fewer women in higher education. The social status of mothers of group II was characterized



by a smaller number of entrepreneurs and large - workers and students. Age at first marriage for these women was often up to 20 and over 30. They are often ill SARS more than twice a year, had abnormal gastrointestinal, endocrine and cardiovascular systems, the anomaly of genital organs. Compared with mothers of group I, these women often recorded abortions and spontaneous abortion, especially in the early stages. They basically found out about the pregnancy to term of 6 to 12, at least - up to 6 weeks, resulting in a register at the antenatal clinic predominantly after 12 weeks of pregnancy and visited a doctor regularly. The peculiarity of pregnancy in these women was the presence of complications such as hydrocephalus, the threat of termination in the II trimester twin-to-placental insufficiency.

Children in Group II, in contrast to the newborn I, mothers were applied to the chest on the third day, and later, as well as an earlier transfer to artificial feeding. Mothers of children in this group rarely promptly summoned to the doctor's house in acute exacerbation of chronic conditions and diseases, because they believed that regulate themselves, rarely performed medical purposes, tempering procedure was performed.

Among the fathers of children in Group II were more who have completed secondary education, social status - and more workers employed in construction work. Among the adverse occupational factors prevailed hard physical labor, of bad habits - smoking. The marriage age of the fathers was often up to 20 years. Fathers of children in Group II were more likely to participate in the upbringing of the child only if they "had the time", and is usually given to a child less than one hour a day.

In group II there were more common-law marriages, divorced or unmarried mothers. These families are less likely to have a separate apartment, often lived in the room "communal". Income attributable to one member of the family, often below the subsistence level. Family relationships were of a volatile, contradictory. Established position of the parents on the child's rehabilitation: active - 36%; passive - at 38%, and aloof - at 26%.

In the analysis of social (38) and biological (45) risk factors in young children with PP CNS at birth revealed that 60,5-73,7% are social, 40-62,2% - biological factors. And in young children with mild CNS PP most influenced by social factors, whereas in children with moderate CNS PP - biological.

Thus, as a result of research conducted by the biomedical risk factors for perinatal pathology revealed that the formation of PP CNS are influenced by social, biological factors and family relations.

The need to identify controllable risk factors providing child PP CNS at different stages of observation of the woman: the pregravidal training in antenatal and post-neonatal period. Eliminate or weaken the effect of biological risk factors (activities to optimize the health of women and children) is a health care system that contingent. However, are important factors such as social status of parents, living conditions, bad habits, relationships between parents, parents and children. Eliminating or leveling of these, as well as biological factors is of great importance to the child's age becomes even more significant.

The risk factors identified in the prediction of health disorders, including perinatal pathology showed that the problem of their correction and removal is an inter-ministerial in nature and requires the formation of structures aimed at a comprehensive medical, psychological, educational and social and legal assistance.

Only when the general orientation of the complex of measures for the prevention of perinatal pathology, with the elimination or weakening of the actions of all risk factors (both biological and social, and psychological), it is possible the effectiveness of the activities in connection with what is necessary to create a structure in a system designed to prevent perinatal pathology to medical and social, psychological and educational rehabilitation. Medical and organizational support should be directed at achieving the following objectives: to provide a holistic approach to providing multimodal comprehensive medical, psychological, educational, social and



legal assistance, coordination of activities of psychologists, educators, social workers and health center professionals to provide consultative and diagnostic, therapeutic and rehabilitative care, the provision of comprehensive medical, psychological, educational, social and legal assistance through the use of modern preventive and therapeutic and diagnostic technologies perinatal psychology, conducting psychological preparation of pregnant women for childbirth, preparing the family for the birth of a child, consulting and services on reproductive health prevention of abortion and to prepare for pregnancy and childbirth, medical and social, legal and psychological assistance to pregnant women in crisis and / or dangerous to the physical and mental health status, as well as being victims of domestic or other violence, and / or are not adapted to social aspect, as well as consultations on issues of social and legal protection of women and children, support for women seeking a termination of an unwanted pregnancy, socio-psychological assistance to minors, aimed at preserving and strengthening reproductive health, preparation for family life, a focus on healthy family; establishment of an early detection of abnormalities in the development of children with central nervous system and the PP to provide them a comprehensive psychological, educational, social and legal assistance, including early detection, correction, habilitation and rehabilitation of children with developmental disabilities.

An important component is the information, and social and legal support for parents and families, including: maintenance and support of parents and family members at the birth of a child with special needs, advising the family (relatives) on the formation of an adequate position to the problems of the child, creating a positive interaction between family members and active participation in child care, training of parents of psychological and pedagogical technologies of cooperation with a child with CNS PP, techniques and methods of education and training in the context of the family and provide them with psychological care, providing information about the laws that protect the rights of the child and family, social guarantees, of community and government organizations that provide the necessary assistance, organization of information events in the media to the public on psychological, educational, social and legal assistance to women and children.

Complex medical and organizational measures designed to improve the care of women, women in labor and childbirth, newborn, children with CNS PP and their families in a large multidisciplinary institution (for example, the Perinatal Center of Khabarovsk) allows timely identification of risk factors, corrected them, weaken their action by increasing the number and enhance the action of positively influencing factors, to carry out medical, psychological, educational and social rehabilitation, to form a healthy lifestyle, greatly reduce the risk of perinatal pathology, thereby reducing perinatal morbidity and mortality, prevention of disability in childhood, the optimal development of the child and adaptation in society.

## CONCLUSIONS

As a result of scientific research of biomedical risk factors for perinatal pathology we revealed that in the studied families of social risk factors of perinatal pathology occurred in 73.7%, life - at 62.2%. In 67.5% breaches of family relations were identified. More than one third of children recorded a combination of social and biological risk factors, which allowed us to justify the need for the development of medical, psychological, educational and social support to these families and to create organizational and functional model of the Center for Medical, psychological, educational and social rehabilitation, aimed at preventing of risk factors and their correction.

Thus, early detection of social and biological risk factors allows reducing and eliminating the causes of perinatal pathology in the first three years of life. The introduction of new medical and organizational technologies to optimize the quality of care for pregnant women at risk, infants and children of the first three years of his life to the work of hospitals can achieve to reduce perinatal morbidity, mortality and disability. It should be noted that the proposed medical and organizational technologies are preventive orientation that can certainly be regarded as a resource-saving technologies, and can be widely used in the practice of health care.



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