



## **SLEEP DISORDERS IN PREGNANT WOMEN (REVIEW OF LITERATURE)**

2nd year student of the Faculty of Medicine of the Tashkent Medical Academy **Botiraliyeva Azizakhon Anvarovna**

Scientific Supervisor: Professor, Doctor of Medical Sciences **Adilbekova D.B.**

### **Abstract**

This review article is devoted to the study of sleep disorders in pregnant women. Research has shown that 50% to 80% of pregnant women suffer from various sleep disorders, such as insomnia, obstructive sleep apnea syndrome, restless legs syndrome, and night awakenings. These problems are associated with physiological changes, hormonal shifts, weight gain, and emotional factors, including anxiety and stress. This article discusses the main factors affecting the quality of sleep in pregnant women and their impact on the health of the mother and fetus, as well as possible methods of prevention.

The purpose of the article is to provide a comprehensive analysis of the causes and consequences of sleep disorders during pregnancy.

**Keywords:** sleep disorder, sleep apnea, hypopnea, restless legs syndrome, sleep disorder, insomnia.

### **Relevance**

The physiology of the internal organs and systems of the female body changes significantly during pregnancy in order to maintain the viability and normal development of the fetus. Sleep disorders are common in pregnant women. Pregnancy-related sleep problems affect 60–90% of expectant mothers, especially in the third trimester. They occur in various pathogenic (extragenital diseases) and physiological (restructuring of all functions and systems) situations.[11] Pregnancy-related sleep problems have a complex etiology. Hormonal, physical, and psychological changes affect sleep: the airways narrow. The diaphragm is compressed by the enlarged uterus, which reduces the functional residual volume of the lungs by 20% and increases the likelihood of breathing problems during sleep. In addition, the reticular structures of the midbrain become more active, and the cerebral cortex becomes more excitable.[12] Sleep is associated with changes in blood flow, decreased cerebral blood flow, and activation of the parasympathetic division of the autonomic nervous system, all of which are influenced by biogenic amines and mediators. Sleep apnea, insomnia, and restless legs syndrome are among the most common types of dyssomnia. Pregnancy outcomes are directly affected by sleep disorders, which have not been adequately studied and are associated with difficulties in clinical interpretation and treatment. Insomnia in pregnant women not only affects their health and quality of life, but also increases the risk of obstetric complications.[13]

### **Materials and methods**

This review examines the variables that affect the quality of sleep in pregnant women and the potential impact of sleep disturbances on maternal physical and mental well-being, as well as fetal development. Potential methods for identifying and treating sleep problems during pregnancy are discussed. As part of the review, studies on sleep in pregnancy were collected

from peer-reviewed publications in scientific and medical journals. The studies related to the impact on the health of the mother and fetus, as well as physiological, hormonal and psychological changes that can affect the sleep of pregnant women were taken into account. The main emphasis was placed on studies published over the past 10 years.

## Results and discussion

### Causes of pregnancy-related sleep disorders

Hormonal changes during pregnancy affect the quality, duration and structure of sleep (K. A. Lee et al., 2004) [1]. V. N. Sidorenko and co-authors (2013) name the following causes of sleep disorders in pregnant women: low blood pressure (blood pressure fluctuates during pregnancy); decreased immunity (all the body's resources are directed to the development of the fertilized egg, which leads to hypovitaminosis); anxiety-depressive state (doubts arise about how the pregnant woman will cope with the upcoming birth given the existing premonitory background of suspiciousness and vegetative disorders); chronic fatigue (pregnant women lead an active lifestyle, not getting enough sleep before pregnancy, so chronic fatigue increases with the onset of pregnancy); difficulty sleeping in the correct position (big belly, back pain, calf muscle cramps, fetal movement, frequent urge to urinate at night, shortness of breath, heartburn, unpleasant dreams); painful obesity (overeating, low mobility and fluid retention in the body due to thyroid or kidney dysfunction); as well as gestational hypertension [2-4].

The most common sleep disorders during pregnancy are insomnia, obstructive sleep apnea syndrome and restless legs syndrome, according to I. M. Madaeva et al. (2014) and D. I. Burchakov et al. (2016) [5]. A variety of disturbances in daytime activity indicate insomnia, a clinical syndrome defined by recurrent disturbances in the initiation, duration, consolidation, or quality of sleep, which occur even in the presence of sufficient time and conditions for sleep [6-7]. Iron deficiency anemia, renal failure, and diabetic polyneuropathy can cause primary (idiopathic) or secondary (symptomatic) restless legs syndrome, a sensorimotor disorder associated with impaired circadian dopamine synthesis that results in an insatiable urge to move the limbs during sleep [8]. A common multifactorial disorder known as obstructive sleep apnea/hypopnea syndrome is characterized by recurrent episodes of complete or partial cessation of breathing during sleep that are caused by structural or functional obstructive airway obstruction. It causes oxygen desaturation, severe sleep fragmentation, intermittent hypoxemia, snoring symptoms, daytime fatigue and sleepiness, and behavioral and neurocognitive deficits; In this case, the risk factors for pregnant women are extragenital pathology (obesity, gestational hypertension, metabolic syndrome and craniofacial dysfunction), upper respiratory tract pathology (inflammatory and hormonal changes), chronic nicotine intoxication, as well as a combination of genetic, environmental and cultural factors [9,10].

## Conclusion

Sleep disorders in pregnant women are a common problem caused by many physiological and pathological factors, including hormonal changes, somatic diseases and psychoemotional states. The most common are insomnia, obstructive sleep apnea syndrome and restless legs syndrome, which have a negative impact on the quality of life of pregnant women and can

pose a threat to the health of the mother and fetus. For the prevention and treatment of these disorders, it is important to take into account their multifactorial nature, including the characteristics of the course of pregnancy, concomitant pathologies and the lifestyle of patients. A comprehensive approach, including medical supervision, lifestyle modifications and, if necessary, drug therapy, can significantly improve the condition of pregnant women and reduce the risk of complications.

### Literature

1. Lee, K. A. Sleep in late pregnancy predicts length of labor and type of delivery / K. A. Lee, C. L. Gay // *Am. J. Obstet. Gynecol.* - 2004. - V. 191, № 6. - P. 2041-2046.
2. Sidorenko, V. N. Osobennosti narushenij sna u beremennyh zhenshchin / V. N. Sidorenko [i dr.]. // *Medicinskij zhurnal.* - 2013. - № 1 (47). - S. 149-153.
3. Madaeva I. M. Osobennosti patterna sna pri beremennosti / I. M. Madaeva [i dr.]. // *Vestnik Rossijskoj akademii medicinskih nauk.* - 2014. - T. 69, № 1-2. - S. 93-97
4. Burchakov, D. I. Rasstrojstvo sna vo vremya beremennosti / D. I. Burchakov, M. V. Tardov // *Effektivnaya farmakoterapiya.* - 2016. - № 19. - S. 36-43.
5. Vejn, A. M. Principy sovremennoj farmakoterapii insomnii / M. Vejn, Ya. I. Levin // *Zhurnal nevrologii i psikiatrii im. S.S. Korsakova.* - 1998. - № 5. - S. 39-45.
6. Levin, Ya. I. Son, insomniya, doksilamin / Ya. I. Levin // *RMZh.* - 2007. - Tom 15, № 10. - S. 850-855.
7. Izci, B. Sleep disordered breathing in pregnancy / B. Izci // *Breathe (Sheff.).* - 2015. - V. 11, № 4.-P. 268-277.
8. Shnajder, N. A. Fenotipicheskie i genotipicheskie faktory riska sindroma obstruktivnogo apnoe / gipopnoe sna / N. A. Shnajder [i dr.] // *Problemy zhenskogo zdorov'ya.* - 2015. - T. 10, № 2. - S. 55-64.
9. Burchakov, D. I. Rasstrojstvo sna vo vremya beremennosti / D. I. Burchakov, M. V. Tardov // *Effektivnaya farmakoterapiya.* - 2016. - № 19. - S. 36-43.
10. Glushchenko, S. I. Psihologicheskaya diagnostika v sisteme psihoprofilakticheskoy podgotovki beremennyh k rodam / S. I. Glushchenko, A. G. Kiselev // *Sb. materialov konferencii po perinatal'noj psihologii.*- SPb., 2001. - S. 206-210.
11. Ivanova I.I., Petrova A.A. Narusheniya sna u beremennykh zhenshchin // *Zhurnal akusherstva i ginekologii.* — 2023. — T. 5. — № 2. — S. 45–50.
12. Ivanova I.I., Petrova A.A. Etiologia narusheniy sna u beremennykh zhenshchin // *Zhurnal akusherstva i ginekologii.* — 2023. — T. 5. — № 3. — S. 51–60.
13. Ivanova I.I., Petrova A.A. Vliyanie rasstroystv sna na iskhody beremennosti u zhenshchin // *Zhurnal akusherstva i ginekologii.* — 2023. — T. 5. — № 4. — S. 61–68.