

## BIBLIOGRAPHY

1. *Caramés, B.* Autophagy is a Protective Mechanism in Normal Cartilage and its Aging-related Loss is Linked with Cell Death and Osteoarthritis / B. Caramés, N. Taniguchi, S. Otsuki [et al.] // *Arthritis Rheum.* – 2010. – Vol. 62, № 3. – P. 791–801.
2. *Gao, T.* Extracellular Vesicles and Autophagy in Osteoarthritis / T. Gao, W. Guo, M. Chen [et al.] // *Biomed Research International.* – 2016. – Vol. 12, № 21. – DOI: 10.1155/2016/2428915.

## GESTOSIS AS PATHOLOGICAL CONDITIONS OF THE SECOND HALF OF PREGNANCY

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Despite many years of research, the problem of gestosis remains not fully understood. From point etiology, gestosis is a multifactorial disease (complication) of pregnancy. According to the WHO, gestosis accounts for approximately 14% of cases of maternal mortality (MS) and takes the 2nd place in the structure of its causes.

*Keywords:* Gestosis, pregnant, edema, proteinuria, hypertension.

Gestosis – pathological conditions of the second half of pregnancy, characterized by a triad of the main symptoms: edema (hidden and visible), proteinuria (the presence of protein in the urine), hypertension (persistent increase in blood pressure).

The diagnosis of gestosis is made on the basis of a characteristic clinical picture, taking into account predisposing factors [1].

In Belarus, the incidence of late gestosis is from 7,3 to 10,5%, while in Russia it is 20–25%, in the USA 23–28 %, and in developing countries it reaches 30–35% [1].

Gestosis is considered a classic complication of pregnancy; it aggravates gestation in 6–8% of pregnant women in developing countries and 0,4% in developed countries. Annually late gestosis affects 1,5 – 8 million women in developing countries and 50 – 370 thousand pregnant women in developed countries [4].

Uncomplicated arterial hypertension in pregnant women does not worsen the outcome of gestation, but with the development of gestosis, the frequency of complications and mortality of mothers and newborns increases [2].

In a Parkland hospital (USA) over a 25-year observation period, the gestosis rate was 1 case per 1750 births.

In the US National Statistical Report, the frequency of gestosis is indicated as 1 case per 3250 births in 1998, i.e. the frequency of gestosis gradually decreases. To date, late gestosis in the United States accounts for 15 % of premature births and 17,6 % of maternal deaths.

An epidemiological study carried out under the auspices of the WHO in China determined a 10,4 % incidence of hypertensive disorders in pregnant women, with a histosis rate of 0,2 %.

In the Russian Federation in recent years there has been an increase in the number of cases of gestosis and its severe forms, respectively, the proportion in the structure of maternal mortality has increased from 9,4 to 15,6 % with fluctuations in the regions from 6–8 to 29,6 % [3].

An analysis of the prevalence of late gestosis in the Republic of Belarus over 10 years from 1996 to 2005 was carried out. Based on data from annual statistical reports (form No. 32) of healthcare institutions in all its regions. According to the results, it was determined that from 1996 to 2003. In Belarus, there was a clear tendency to increase the incidence of gestosis from 7,7 to 10,3 % of women who completed a pregnancy, that is, an increase of 3,1 % [3].

Since 2004, the republic has seen a tendency to reduce the frequency of this pregnancy complication to 9,9 %, in 2005 – to 9,1 %. Analysis of studies indicates that in the Republic of Belarus for the period from 1996 to 2005. 22 women died, the pregnancy of which was complicated by gestosis, which amounted to 18,3 % of all cases of maternal mortality that occurred during this time period [2].

Late gestosis continues to be one of the most frequent and serious complications in the process of pregnancy development, childbirth and the postpartum period, not only in our country, but also abroad. The frequency of these gestosis is constantly growing [4].

## BIBLIOGRAPHY

1. *Айламазян, Э. К.* Акушерство: Учебник для медицинских вузов / Э . К. Айламазян 4-е изд., доп. – СПб: СпецЛит, 2003. – 528 с.

2. Башмакова, Н. В. Современные подходы к профилактике гестоза / Н. В. Башмакова, Л. А. Крысова, Е. Н. Ерофеев // Акушерство и гинекология. – 2006. – № 5. – С. 45–47.
3. Герасимович, Г. И. Поздний гестоз беременных / Г. И. Герасимович // Мед. новости. – 2000. – № 4. – С. 3–16.
4. Современные подходы к диагностике, профилактике и лечению гестоза / сост. Г. М. Савельева [и др.]. – М., 2009. – 43 с.

## ANALYSIS OF STOLIN DISTRICT THYROID DISEASES INCIDENCE IN 2013–2017

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Iodine deficiency diseases are among the most common non-communicable human diseases. Among many etiological factors for the rapid increase in the incidence, iodine deficiency in the environment, unfavorable environmental situation, and the consequences of the Chernobyl accident are to be noted. The morbidity indicators of the population of the Stolin district of the Brest region with iodine deficiency pathology of the thyroid gland in the period from 2013 to 2017 were analyzed.

**Keywords:** thyroid gland, incidence, long-term dynamics, trends, incidence structure.

Thyroid diseases in the structure of endocrine pathology take the second most frequent place after diabetes. The determining factor in the epidemiology of these diseases and their nosological structure is the level of iodine intake. Deficiency of iodine in the body is the main factor affecting the health status of the thyroid gland in people living in the Republic of Belarus [2]. The prevalence of young and middle-aged people among sick people makes this pathology especially relevant.

The aim of this work was to analyze the dynamics of the incidence [1] of the population of the Stolin region with iodine deficiency thyroidopathy for the period 2013–2017. in general and by age groups. The object of the study was the reporting materials on the number of cases of thyroid diseases registered in the population served by the Stolin Central District Hospital.

In the structure of endocrine pathology of the population of the Stolin region, the average annual proportion of thyroid diseases in the period from 2013 to 2017 amounted to 47,5%. Morbidity indicators were calculated for the entire population and by age groups: children (0–14 years old), adolescents (15–17 years old) and adults (18 years old and older). During the period under review, a steady growth trend was revealed in the dynamics of the general incidence of the population of the region with thyroid gland diseases ( $R^2 = 0,99$ ). The average annual value of the incidence rate  $A_0$  was 242,18 cases of diseases per 10 thousand of the population. The overall incidence increased from 198,5 ‰ to 289,4 ‰ or 1.5 times. In the dynamics of the primary incidence over five years, a steady upward trend was also noted ( $R^2 = 0,81$ ). The average annual value of  $A_0$  was 30,8 cases of diseases per 10 thousand of the population. The primary incidence rates at the end of the study period in relation to the initial year of the study increased 1.7 times: from 22,2 ‰ in 2013 to 36,8 ‰ in 2017. The ratio of primary and total morbidity in 2013 amounted to 1: 8,9, in 2017 - 1: 7,9, which indicates the prevalence of chronic forms of thyroid pathology.

An analysis of the dynamics by age groups showed a steady upward trend in the indicators of the general and primary morbidity in the district's children ( $R^2$  was 0,81 and 0,74, respectively). The average annual values of  $A_0$  were 55,1 and 19,8 cases of thyroid disease per 10 thousand children in the district, respectively. In adolescents, a moderate upward trend ( $R^2 = 0,65$ ) was revealed in the dynamics of the general incidence rate, and the indicators increased 1.3 times. Primary incidence had a steady upward trend ( $R^2 = 0,99$ ), an increase of 2,6 times. The average annual values of  $A_0$  were 357,5 and 95,24 cases of disease per 10 thousand adolescent population of the region, respectively. The ratio of primary and total morbidity was 1: 3,75. The overall incidence of adults was characterized by steady growth ( $R^2 = 0,99$ ). The average annual incidence rate was 287,46 cases of diseases per 10 thousand of the adult population. In the dynamics of the primary incidence of the population over 18 years of age, a slightly pronounced upward trend was noted ( $R^2 = 0,48$ ). The average annual indicator  $A_0$  was 30,62 ‰. The ratio of primary and general morbidity in adults is 1: 9,4.

The results of the analysis showed the highest incidence and prevalence of iodine deficiency thyroid pathology among the adolescent population of the Stolin region. Chronic forms of the disease were recorded more often