



MENSTRUAL CYCLE DISORDERS IN OVERWEIGHT GIRLS

Negmatova G.Sh., Kurbanova N.S.

Samarkand State Medical University

✓ *Resume*

In recent years, there has been an increase in overweight and obese children. At the same time, in the scientific literature, these pathologies affect the violation of reproductive health in adolescent girls and girls. At the present stage of the development of society, an overview is given in the literature related to the reproductive health of girls and teenage girls. Being overweight has been shown to lead to menstrual irregularities, childbirth, premature puberty, polycystic ovary syndrome, hormonal imbalances and decreased folliculogenesis. At the same time, with a decrease in excess weight, the restoration of the menstrual cycle and fertility was noted.

Keywords: reproductive health, reproductive system, girls, adolescents, puberty.

ORTIQCHA VAZNLI QIZLARDA HAYZ DAVRINING BUZILISHI

Negmatova G.Sh., Kurbanova N.S.

Samarqand Davlat Tibbiyot Universiteti

✓ *Rezyume*

So'nggi yillarda ortiqcha vaznli va semirib ketgan bolalarning ko'payishi kuzatilmoqda. Shu bilan birga, ilmiy adabiyotlarda ushbu patologiyalarning o'smir qizlar va qizlarda reproduktiv salomatlikning buzilishiga ta'sir etmoqda. Jamiyat rivojlanishining hozirgi bosqichida qizlar va o'smir qizlarning reproduktiv salomatligi bilan bog'liq adabiyotlarda umumiy ma'lumot berilgan. Ortiqcha vazn hayz davrining buzilishi, tug'ish, erta balog'atga etishish, polikistik tuxumdon sindromi, gormonal nomutanosiblik va follikulogenezning pasayishiga olib kelishi isbotlangan. Shu bilan birga, ortiqcha vaznning pasayishi bilan hayz tsikli va unumdorligi tiklanishi qayd etildi.

Kalit so'zlar: reproduktiv salomatlik, reproduktiv tizim, qizlar, o'spirinlar, balog'at yoshi.

НАРУШЕНИЯ МЕНСТРУАЛЬНОГО ЦИКЛА У ДЕВОЧЕК С ИЗБЫТОЧНОЙ МАССЫ ТЕЛА

Негматова Г.Ш., Курбанова Н.С.

Самаркандский государственный медицинский университет

✓ *Резюме*

В последние годы отмечается рост детей с избыточной массой тела и ожирением. В то же время в научной литературе данные патологии отражаются на репродуктивном здоровье девочек-подростков и девушек. На современном этапе развития общества в литературе даются общие сведения, касающиеся репродуктивного здоровья девочек и девочек-подростков. Доказано, что лишний вес провоцирует нарушение менструального цикла, фертильности, развитие преждевременного полового созревания, синдром поликистоза яичников, нарушение гормонального фона, снижение фолликулогенеза. Однако, отмечено, что при снижении избыточного веса происходит восстановление менструального цикла и фертильности.

Ключевые слова: репродуктивное здоровье, репродуктивная система, девочки, подростки, пубертат.

Relevance

Deviations from normal body weight represent an urgent problem of adolescent gynecology due to the significant influence of excess or deficiency of body weight on the formation and functioning of the reproductive system.

Indeed, numerous studies indicate a close relationship between adipose tissue and various parameters of the reproductive system. It is a well-known fact that menarche occurs when the body reaches a certain mass, more precisely, with the accumulation of the required amount of adipose tissue [1], and with the loss of this “critical” amount of mass, menstruation may stop [2]. There is an opinion that menarche occurs earlier in a population of overweight girls, and delayed puberty is characteristic of underweight girls [3, 4]. Overweight and obesity are associated with such endocrine and gynecological diseases as polycystic ovary syndrome, hypothalamic syndrome of puberty, and deficiency - anorexia nervosa, amenorrhea against the background of weight loss, delayed sexual development of central genesis [5, 6]. In every 4th girl, secondary amenorrhea is associated with weight loss. This is facilitated, on the one hand, by the modern ideal of a thin figure, on the other hand, by the mental infantilism of girls, in which everything seems achievable, as well as such personality traits as will, perseverance in achieving the goal. Amenorrhea usually appears when there is no apparent source of exhaustion. Its occurrence depends more on the initial body weight, the rate of its loss and individual sensitivity to the mass factor than on the degree of weight loss.

The problem is exacerbated by the fact that the prevalence of deviations from normal body weight in the population does not tend to decrease. On the contrary, the number of obese patients around the world continues to grow, worsening, among other things, the reproductive health of the population, accompanied by an increase in morbidity and mortality from cardiovascular complications, oncological pathology [7].

The level of health and development of society is largely determined by the health of children and adolescents, who constitute a significant part of the population structure and form the reproductive potential [3]. Recent studies show a progressive deterioration in the quality of health of children and adolescents [2, 3, 7]. Due to the high general morbidity, there is a tendency to reduce the reproductive capabilities of modern adolescent girls [9, 13]. According to various studies, the prevalence of hypothalamic dysfunction (DH) in puberty among girls ranges from 7.1 to 25% [9, 11]. Among girls aged 12–17 years with menstrual disorders, DG reaches 34.7% [1, 8, 10]. According to many researchers, obesity during puberty is one of the factors that exacerbate somatic and reproductive health disorders [2, 5, 8, 13, 15].

According to the WHO definition, human reproductive health is a state of complete physical, mental and social well-being, and not just the absence of diseases or ailments in all areas related to the reproductive system, its functions and processes. This concept is multifaceted, consisting of a number of factors: socio-economic; heredity; conditions of intrauterine development and features of the course of pregnancy and childbirth; somatic health; reproductive behavior at puberty; ecology; conditions and lifestyle of the family [2, 9].

Obviously, it is the state of the reproductive health of the female population that deserves special attention from the state. In the Republic of Uzbekistan for ten years by 2020, such negative trends in the state of female reproductive health as an increase in the primary incidence of malignant neoplasms of the mammary glands - by 18%, of the cervix and uterine body - by 12%, of the ovary - by 7% should be noted. In addition, such socially significant diseases as active tuberculosis - by 30% and alcoholism - by 15%. A high level of gynecological morbidity remains in the group of menstrual disorders, where the latter fluctuates in the range from 430 to 594 cases per 100,000 female population per year; by 15% by 2004, the incidence of infertility increased. The state of health of pregnant women, women in childbirth and puerperas also deserves attention. There is an increase in the proportion of pregnancies complicated by anemia, cardiovascular diseases and diseases of the genitourinary system. As a result, the frequency of complications of pregnancy with late preeclampsia increased by 4%. Of particular note is the situation with abortion. Over the past ten years, there has been an annual decrease in the number of abortions, which is in line with the global trend. However, the number of the latter remains at a high level and, by the end of 2021, in absolute terms, is about 15,020 abortions or 37.8 abortions per thousand women of childbearing age. [eight].

One of the most integrated indicators of the reproductive health of the population is maternal mortality, which has been steadily declining in the Republic of Uzbekistan over the past decade and has averaged about 33.5 per 100,000 live births per year in recent years. In 2021, it averaged 25.4 per

100,000 live births, with fluctuations depending on the district from 17.9 to 37.2. In highly developed countries, this figure is less than or equal to 10, and in the countries of the "third world" it ranges from 480 to 1500. The world average is about 430 cases per 100,000 live births. The lifetime risk of maternal death in Uzbekistan is 1:750 (on average 1:8000 in highly developed countries and 1:50 in underdeveloped countries). Poor reproductive health affects perinatal and infant mortality rates. Over the past ten years, these indicators have been steadily declining, but still remain at a fairly high level and amount to 10.17 and 11.0 per 1000 live births in 2005, respectively [8,9].

Particularly relevant are the issues of preserving the reproductive health of children and adolescents, since violations of the specific functions of the body of an adult woman are largely formed in childhood and adolescence. Predominantly in puberty, intense sexual differentiation occurs, due to the action of the endocrine glands, increased activity of the pituitary-gonadal and pituitary-adrenal relationships, growth, development and formation of the reproductive system [7].

Many factors influence the growth and development of the reproductive system. Examples of the influence of intrauterine development conditions and the characteristics of the course of pregnancy and childbirth on reproductive health are various violations of the formation and development of the genitals during infection, somatic diseases of the mother, unfavorable course of pregnancy and childbirth. Of particular note is the influence of bad habits of the mother, as well as the intake of certain medications during pregnancy. An important role in the formation of the function of the reproductive system is played by heredity [4, 7, 15].

The connection between the favorable development and formation of the functions of the reproductive system and the somatic health of the child is confirmed by the data that children belonging to II and III health groups suffer from one or another gynecological pathology in 50-60% of cases. Severe somatic pathology, including oncological and systemic diseases, requiring long-term use of large doses of glucocorticoids, chemotherapy and radiotherapy drugs, inhibit and sometimes block the development of the reproductive system. The connection of the latter with the nervous and endocrine systems is especially close [1, 7, 15].

Speaking about the impact on the reproductive health of the living conditions and development of the child, it should be noted the increase in the influence of such unfavorable factors as the low economic status of families, unfavorable environmental conditions, a massive information load, physical inactivity. This, in turn, determines the growth of pain, delayed sexual and physical development, and menstrual irregularities up to amenorrhea [3, 18].

Numerous studies on the action of anthropogenic environmental factors testify to their negative impact on the formation of the child's reproductive function. Of particular importance are the increase in the maximum permissible concentrations in the atmosphere of industrial emissions, agrochemical products and radionuclides [5, 10].

In general, puberty is critical not only for the reproductive system. This is confirmed by an increase in the incidence of adolescent girls, mainly in the groups of diseases of the endocrine system and metabolic disorders, diseases of the blood and hematopoietic organs, organs of the genitourinary system and the central nervous system. For the period 2001-2005. the overall incidence in the group of girls aged 15-17 increased from 57,656.2 to 71,101.1 per 100,000 population, respectively [8, 13].

The vulnerability of the reproductive system in the process of its formation is the basis for the emergence of a number of gynecological diseases. One of the main indicators of girls' reproductive health is gynecological morbidity in the population. Gynecological pathology of the childhood period includes predominantly inflammatory diseases of the vulva and vagina - 12-93%, as well as synechia of the labia and dystrophic diseases of the vulva - 4.7-5.2%. The predominance of this pathology is associated with a low level of estrogen saturation of the body in this age period. Chronic salpingitis is 8%, precocious sexual development of iso- and heterosexual type - 2.5%, there are rare cases of cryptogenic peritonitis. The pathology of puberty, taking into account the activation of growth and development of the reproductive system taking place in it, as well as the early age of onset of sexual activity and the frequent change of sexual partners, currently most often includes vulvovaginitis - in 34% of cases, menstrual disorders - 26%, dysmenorrhea - 21%, inflammation of the internal genital organs - 11%. In 2021, in the Republic of Uzbekistan, the incidence of sexually transmitted infections in the age group of 15-17 years was 50.4 per 100,000 female population. There is an increase in the frequency of menstrual cycle disorders by 1.4 times in girls aged 10-14 and 1.3 in adolescents aged 15-17 over the period 2001-2005. [9, 12].

The growth and aggravation of adolescent problems of a medical and psychosocial nature are

currently facilitated by the acceleration of adolescent sexual development, ongoing urbanization, and the influence of the media. In recent years, a large group of social risk has formed - these are children and adolescents who start sexual activity early, use alcohol and drugs, and engage in prostitution [11, 12, 13].

Especially acute over the past decade has become the problem of early sexual activity of adolescents. According to personal data, up to 67% of girls are calm about the early extramarital onset of sexual activity. This problem is directly related to the issues of unwanted pregnancy, abortion and motherhood of young primigravidas. According to WHO, up to 10% of all births in the world occur at the age of 15-19 years. The contribution of mothers aged 15-19 to the birth rate in Russia is 14-15%. Some researchers regard this as a positive development. However, in general, it is difficult to unequivocally assess it, given the increased risk of complications of pregnancy and childbirth in young primiparas. However, this indicator remains one of the highest among economically developed countries, with every tenth abortion in the country performed under the age of 20 years. In the age group under 20, there is the lowest proportion of mini-abortions and the highest proportion of abortions performed after 12 weeks. It should be noted that complications after abortion in girls occur 3-5 times more often than in adult women, especially if the abortion occurred at a later date. Maternal mortality in adolescents exceeds that in women of reproductive age by 5-8 times. The frequency of gynecological pathology in girls with sexual experience is 2.5 times higher than that of their peers who do not have such experience. Every year, over 100 million cases of primary incidence of curable sexually transmitted infections are recorded worldwide in the age group of 15-24 years. Casual sexual contacts, often in a state of alcoholic or drug intoxication, against the background of the persistence of sexual illiteracy in adolescents, are the main reason for the increase in the incidence of sexually transmitted diseases in them. The upward trend in patients with HIV infection continues [8,14].

Preserving and restoring the reproductive health of girls is a national task. The focus is on early diagnosis and treatment of disorders of the reproductive system, prevention of adverse effects of occupational and industrial hazards, sexually transmitted diseases, HIV infection, drug addiction, and alcoholism. One of the solutions to the problems of adolescent reproductive health is the development of specialized gynecological care for children, which is closest to the needs of the child population [6, 8, 16].

Conclusion

To implement the national program, a number of projects have been developed, among which the national project "Health" is of the greatest importance for reproductive health, aimed at increasing the population's access to quality medical care, as well as preventing diseases and promoting a healthy lifestyle. Great importance is attached to the formation of a sanitary culture of the population. This problem can be conditionally divided into two components: the first is informing the population about the primary signs of gynecological diseases, their consequences and prevention options. The second component is educating the population in a responsible attitude to their health as the highest value of life, as well as instilling in the younger generation the skills of a responsible attitude to family issues and sexual relations, to pregnancy planning, which guarantees the birth of a healthy child and the preservation of reproductive health.

LIST OF REFERENCES:

1. Arhipova M.P., Hamoshina M.B., Chotchaeva S.M. i dr. The reproductive potential of Russia: Prospects, Problems and prospects of improvement. // *Doktor.Ru [Doctor.Ru]*. 2013; Vol. 1 (79): 70–4. (in Russian)
2. Bystrickaya T.S., Filatov S.A., Lysyak D.S., et al. Reproductive potential of girls and adolescent girls Amur region. // *Amurskiy medicinskiy zhurnal [Amur Medical Journal]*. 2014; Vol. 2 (6): 42–6. (in Russian)
3. Kovaleva Yu.V. The role of obesity in the development of menstrual and reproductive function. // *Rossiyskiy vestnik akusherstva i ginekologi [Russian Gazette of Obstetrics and Gynecology]*. 2014; Vol. 2: 43–51. (in Russian)
4. Leont'eva I.V. Metabolic syndrome as a pedagogical problem. *Rossiyskiy vestnik perinatologii i pediatrii [Russian Gazette Perinatology and Pediatrics]*. 2008; Vol. 3: 4–15. (in Russian)

5. Leshchenko O.Ya. Reproductive potential of modern man (analytical review). *Reproduktivnoe zdorov'e detey i podrostkov* [Pediatric and Adolescent Reproductive Health]. 2013; Vol. 5: 10–2. (in Russian)
6. Mahmud T. Obesity as a reproductive barrier. Are we ready for the issue? // *Akusherstvo i ginekologija* [Obstetrics and Gynecology]. 2015; Vol. 7: 21–5. (in Russian)
7. Suturina L.V., Kolesnikova L.I. The main pathogenetic mechanisms and methods of correction of reproductive disorders in patients with hypothalamic syndrome. // Novosibirsk: Nauka, 2001: 132 p. (in Russian)
8. Tkachenko L.V., Salij M.G. Evaluation of psycho vegetative regulation with hypothalamic dysfunction in young women with impaired reproductive function. *Reproduktivnoe zdorov'e detey i podrostkov* [Pediatric and Adolescent Reproductive Health]. 2013; Vol. 6: 25–31. (in Russian)
9. Uvarova E.V., Khashchenko E.P. Hypothalamic dysfunction: pathogenesis and clinics (review). *Reproduktivnoe zdorov'e detey i podrostkov*. [Reproductive Health of Children and Adolescents]. 2010; Vol. 1: 65–76. (in Russian)
10. Graf A.V., Dunaeva T.I., Maklakova A.S., Maslova M.V. Transgenerational effects of prenatal stress of different etiology. *Izv. Akad. Nauk. Ser. Biol.* 2012; Vol. 5: 529–39.
11. Polotsky A.J., Hailpern S.M., Skurnick J.H., Lo J.C. Association of adolescent obesity and lifetime nulliparity – the Study of Women's Health Across the Nation (SWAN). *Fertil Steril.* 2010; Vol. 31: 2004–11.
12. Manhart L.E., Holmes K.K. Randomized controlled trials of individual -level, population-level, and multilevel interventions for preventing sexually transmitted infections: what has worked? // *Journal of Infectious Diseases.* - 2005. - Vol. 191(Suppl 1). - P.7-24.
13. Mayaud P., Mabey D. Approaches to the control of sexually transmitted infections in developing countries: old problems and modern challenges // *Sexually Transmitted Infections.* - 2004. - Vol. 80. - P.174-182.
14. Mulick S. Sexually transmitted infections in pregnancy: prevalence, impact on pregnancy outcomes, and approach to treatment in developing countries // *Sexually Transmitted Infections.* - 2005. - Vol. 81. - P.294-302.
15. Pagliusi S. R., Aguado M. T. Efficacy and other milestones for human papillomavirus vaccine introduction // *Vaccine.* - 2004. - Vol. 23. - P.569-578.
16. Pregnant adolescents: delivering on global promises of hope. - Geneva, // *World Health Organizations*, 2006. - 28p.
17. Karimova N.A. et al. Violation of physical development in adolescents and complications of reproductive pathology // *New day in medicine.* – 2021. – no. 1. - S. 199-202.
18. Karimova N.A., Kurbanova N.S. "Violation of physical development in adolescents and its complications." // *Journal of Cardiorespiratory Research* 2.2 (2021).
19. Sobirjonovna K.N. Factors determining the clinical significance of deipeptidyl peptidase 4 inhibitors in the treatment of patients with type 2 diabetes mellitus // *World Bulletin of Public Health.* – 2022. – T. 8. – C.67-72.

Entered 09.08.2022