

Specificity Of Otorhinolaryngological Diseases In Children Born Of Multiple Pregnancies

Nurov Ubaydullo Ibodullayevich

Bukhara State Medical Institute, Associate Professor of the Department of Otorhinolaryngology and Ophthalmology. PhD.

Abstract. *This article explains the state of the ENT organs in twins and the rhythmic manifestations of life changes in them. Based on this article, it will be possible to find out what diseases of the throat, nose and the auditory system are susceptible to children born on the basis of multiple pregnancies. To assess the role of hereditary and environmental factors and the development of diseases, pathological changes in the functional and anatomical aspects of the ENT organs in Gemini are still observed. In addition, in Gemini, the pathology of anatomical and physiological defects of the ENT organs is more common in twin children in the perinatal period, in comparison with children born alone. Changes associated with the work of the respiratory organs and the same systems are becoming more and more noticeable, including with the formation of ENT organs and, in particular, a sound analyzer, a deviation of the nasal barrier, nasal congestion and, accordingly, an increase in defects that further will exert their influence on other organs of the body.*

Keywords. *ENT(otorinolaringologiya) organs, multiple pregnancy, geometric progression, mono chorionic twins, teratogenic agents.*

1. INTRODUCTION.

In the last 15–20 years, the frequency of multiple pregnancies and childbirth has been progressively increasing throughout the world, including in our country. From 2005 to 2016, the number of twins born per year increased 2.2 times, and the number of triplets - 3.6 times. If in 2005 multiple births accounted for approximately 0.7% of all births, then in 2016 this figure reached 1.2% (2,3)

Despite a significant overall decrease in perinatal mortality, mortality in multiple pregnancies has not decreased for the last 30 years due to prematurity, since almost 20% of them give birth before 32 weeks of pregnancy (1,5)

To a certain extent, the emerging trend can be explained by the increasing availability of assisted reproductive technologies. Despite the stabilization of the number of multiple pregnancies, their share in the population remains very significant. It should be emphasized that multiple pregnancies are accompanied by a significant increase in the risk of all obstetric complications: preeclampsia, bleeding, premature birth, and fetal growth disorders. Even under the conditions of modern medicine, perinatal mortality in multiple pregnancies is 4 times higher than in singleton pregnancies, and among mono chorionic twins is an order of magnitude higher than bichorionic ones (4). The frequency of placental disorders and the development of fetal growth retardation syndrome (FGRS) in twins is 10 times higher than in newborns with singleton pregnancy (3).

Multiple pregnancy is one of the pressing problems of perinatal obstetrics. The introduction of reproductive technologies into practice has led to a significant increase in

multiple pregnancies, especially in large cities. At the same time, a number of new problems arise in connection with proliferation, one of which is premature birth, which in turn causes an increase in perinatal morbidity and mortality, the leading causes of which are prematurity, hypoxia and fetal malnutrition, severe placental insufficiency. A comprehensive assessment of risk factors, the state of the cervix, fetuses with the help of modern informative methods allows, in some cases, to timely carry out therapeutic measures, adequately choose the method of delivery and reduce perinatal losses .. (1)

A detailed study of them began more than a hundred years ago, when the English scientist Francis Galton (1822-1911) published an article in London in 1876 on twins, in which he raised important questions related to human development and tried to answer them using the method of comparing twins ("The History of twins as a Criterion of the Powers of Nature and Hurture"). The appearance of this article marked the beginning of the scientific study of twins and the widespread use of the twin method. This method has taken its rightful place among others in many areas of medicine (6)

According to statistics, on average, for every 100 births in the world, one pair of twins is born, that is 1.2% Consequently, twins make up 2.9% of all newborns (7). However, the death of one of the twins often occurs during periods of intrauterine development and childbirth.

Multiple multiple pregnancies are not common in humans, unlike animals. Its probability depends on some natural factors: the mother's age (increases with age), race (most often in African peoples, least often in Asian ones) and the presence of such multiple pregnancies in relatives. Before the era of reproductive technology, fraternal twins occurred in about one case in 80 births, and fraternal triplets, quadruplets, etc., occurred with an exponential decrease in frequency - about 1 case in 80^2 , 80^3 , etc. births, respectively. With the introduction of reproductive technologies, the incidence of multiple multiple pregnancies has increased significantly. Older mothers are more likely to have twins. The frequency of identical multiple pregnancies remains constant at 4 per 1000 births. (From Wikipedia, the free encyclopedia Multiple pregnancies)

According to some authors, 1/3 of all twins are MZ twins and 2/3 are DZ pairs, the gender distribution among them is almost uniform. Although it is generally accepted that multiple births account for about 1% of all births, the frequency of twin births varies quite widely depending on the race and country. (6.8)

The urgency of the problem of multiple pregnancies lies in a significant number of complications during pregnancy and childbirth, an increase in the proportion of caesarean section, defects of ENT organs and an increase in genetic diseases, complications of the postpartum period, an increased level of antenatal losses at various gestational periods, a high frequency of neurological disorders in surviving children (nine).

Multiple pregnancies occur in 1.5-2.5% of cases, more often in families where the mother or father, or both spouses were born as a result of multiple pregnancies (10.5). In this case, the mother's genotype plays the most significant role. It is impossible not to recall the well-known formula, according to which multiple pregnancies occur with the frequency of a geometric progression formed when raising to the power of the number 80: one twins occurs in 80 births, triplets - in 80 births squared (6400), a quadruple - in 80 births in a cube (512,000), five - for 80 genera in the fourth degree (40,960,000).

The interest in multiple pregnancies that has existed since ancient times has increased in the last 15-20 years due to the avalanche-like increase in multiple pregnancies associated with the introduction of assisted reproductive technologies. (11)

Patients with multiple pregnancies remain at high risk of perinatal complications. Even with the modern development of medicine, perinatal mortality in twin pregnancies is 5 times higher than in singleton pregnancies, intrauterine fetal death is 4 times higher, neonatal - 6

times, perinatal - 10 times higher. The frequency of cerebral palsy in children with twins is 3-7 times higher, with triplets - 10 times. The level of ante- and intrapartum complications from the mother is 2-10 times higher than that in patients with singleton pregnancy (12).

Perinatal morbidity and mortality in twins are dependent on chorionicity. According to studies in Bukhara, the level of perinatal mortality, due mainly to deep prematurity at birth, is higher in monochorionic twin than in dichorial twin (5 and 2%, respectively). Preterm birth rate up to 32 weeks. with monochorionic pregnancy is 10% compared with 5% with dichorionic twins. The frequency of spontaneous abortion in the period from 11th to 24th weeks. with dichorial twins, it is 2%, with monochorionic twins - about 10% (13).

In case of abnormalities of labor in the pathogenesis of the damaging effect on the fetus, metabolic disorders in the fetus, which develop as a result of hypoxic-ischemic disorders, are acquired, combined with mechanical action on it. It is known that the violation of metabolic reactions leads not only to functional, but also to organic disorders simultaneously in many organs and systems of the body, including the inner ear (cochlea), the auditory nerve and the central parts of the sound analyzer (11). Hypoxia and fetal asphyxia can lead to pathological changes in them.

In the early postnatal period, organic lesions of the central nervous system, hyperbilirubinemia, exchange and fractional blood transfusions in hemolytic disease of newborns, prematurity, and other factors can have an adverse effect on auditory function (14).

Premature babies differ from healthy full-term babies by the immaturity of many systems and organs, they often get sick at an early age, and lag behind in psychomotor development from their full-term peers (15). The adverse effects of low birth weight also affect adolescence: such children often have reduced academic performance and need special educational programs. Canadian scientists have found that by the age of 12, 28% of children born deeply premature have sensorineural disorders, and among children born full-term, such disorders were noted only in 1% of those examined (16). Negative factors affecting the fetus during gestation, prematurity, early transition to artificial feeding lead to disruption of the protective function of the immune system and create favorable conditions for the occurrence of infectious inflammatory processes, including inflammatory ear diseases (17).

The cause of multiple pregnancies is the occurrence of many congenital diseases of the ENT organs. One of them is congenital choanal atresia. (18) Congenital choanal atresia is a rare pathology and ranks third among other congenital pathologies and is a consequence of the preservation of the nasopalatine membrane that appears between the 6th and 12th weeks of gestation, due to the convergence and sequential fusion of the posterior edge of the vomer with the posterior ends of the turbinates. According to domestic and foreign literature, there is 1 observation of congenital choanal atresia for 5000-7000 newborns. The etiology and pathogenesis of choanal atresia remain unclear until now. It is possible to note an extraordinary teratogenic agent, a variety of factors that can lead to the occurrence of anomalies of congenital malformations. The largest group is made up of endo - and exogenous, which can have both a direct effect on the fetus and indirectly through the maternal organism. (19)

Pathological conditions associated with hearing in twins are 3% more common than in other ENT organs. (20) The state of hearing is directly related to the social development of a person and his intellectual potential, especially in young children, because at this time the sound analyzer is under the control of higher brain functions. (21) Upper brain functions (attention, number of auditory analyzers) influence the results of auditory audiometry, but today hearing organs are more common in congenital twins. (22) This is associated with the development of the brain organs and incomplete oxygen consumption by the cells of the brain (23) Relative tissue hypoxia is associated with the expansion of the placenta and the

prevalence of inflammatory diseases that are often found in twin pregnancies (24) Philo and ontogenesis Identifying the causes that determine the origin of ENT pathology - organs and the development of the disease is very important (20). This will allow identifying risk factors for ENT diseases, including hearing loss and deafness (24), and will lead to the development of a scheme for the prevention of ENT diseases.

2. CONCLUSION.

Based on the results of in-depth studies, most twins born with multiple pregnancies may have special conditions in the ENT organs, including hereditary ones, due to the influence of endogenous and exogenous factors in the womb or bad habits in the mother's life. and neurological changes in auditory organs in twins caused by genetic changes. In addition, due to internal pressure, there is a tendency of the nose and nasal symmetrical bones to bend or shrink. This is about 3% of twins. The most common cause of neurological symptoms in the ear and nose may be low oxygen reaching the placenta and blood vessels.

3. REFERENCES

- [1] Arkhipov V.I., Dzhokhadze L.S. Kulavsky E.V., Arkhipov V.V., Kulavsky V.A. Multiple pregnancy - risk of premature birth 2015
- [2] Bondarenko K.R., Kuznetsov P.A., Lian V.V., Kriger A.V., Yeletnova E.S. 2020
- [3] Arkhipov V.I., Kulavsky E.V., Arkhipov V.V., Kulavsky V.A. Multiple pregnancy - risk of premature birth 2015
- [4] Karina R. Bondarenko Attention Deficit Disorders in Children / L.O. Badalyan N.N. Zavadenko, T.Yu. Uspenskaya 2013
- [5] Arkhipov V.I. Features of the health of children born to women with the help of assisted reproductive technologies // Russian Bulletin of Perinatology and Pediatrics 2016
- [6] . Larisa Alexandrovna. Twin method in assessing the formation of pathology of ENT organs in childhood 2005
- [7] McCusick V. Human Genetics Chronic tonsillitis: a new method of treatment and criteria for its effectiveness 2007
- [8] Larisa Alexandrovna 2005, Pivneva Natalya Dmitrievna 2015 Features of development and diseases of the nervous system of twins
- [9] S.V. Barinov, E.V. Rogova, T.V. Kadtsyna Analysis of the causes and mechanisms of delayed somatic development of twins / N.G. Lipovetskaya // In the book: The phenomenon of decompensation and compensation in somatopsychic development.-M. 2015
- [10] E.B. Tsvitsivadze Organic damage to the nervous system after birth trauma in twins 2014
- [11] Forsvoll J., Kristoffersen E.K., Oymar K. Incidence, clinical characteristics and outcome in Norwegian children with periodic fever, aphthous stomatitis, pharyngitis and cervical adenitis syndrome; a population-based study // ActaPaediatrica. - 2013. - Vol.102. - P. 187-192
- [12] Goncharova O.V. Neuropsychic development of children born from multiple pregnancy / Z.I. Lyats // Health of Kazakhstan. 2000
- [13] Buchinsky E. J., Lowry M. A., Isaacson G. Recurrent infection in the child. Identification and evaluation of patients at risk for immunodeficiency 2000

- [14] Bainesheva T.I. DNA diagnostics for congenital and early childhood hearing loss and deafness / T.G. Markova, S.M. Megrelishvilli, N.G. Zaitseva et al. // Bulletin of otorhinolaryngology. 2006
- [15] Denisova A.R., Geppe N.A. Reliability of biological systems as a development factor / A.A. Markosyan // Journal of Evolution, Biochemistry and Physiology 2018
- [16] Sogut A., Yilmaz O., Kirmaz C., Ozbilgin K., Onur E., Celik O. Foetal and infant mortality in multiple pregnancy // J. Obstet. Brit. Emp. 2012
- [17] Daihes N.A. Justification of the strategy of surgical correction of exudative otitis media in children / A.I. Mashchenko, V.A. Khitrov, O. V. Ermolova // News of otorhinolaryngology to logopathology. 2015
- [18] Christine L. Segboer, Wytse J. Fokkens, Ingrid Terreehorst, Cornelis M. van Drunen Uber die Haufigkeit von Zwillingsgeburten // Dtsch. Med Wochensehr 2018
- [19] Sitnik N., Alferovich E. Otokopia oraz impedancja akustyczna u noworodkow u pierwszych piecing dniach zycia // Otolaryngol. Pol. - 2014
- [20] Anna Antonovna Functional disorders of the auditory tube and the development of a method for their correction in various pathologies of the middle ear: Author's abstract. diss cand. honey. Sciences 2010
- [21] Lebedeva Svetlana Yurievna Early diagnosis of perinatal brain injury in high-risk newborns 2018
- [22] Van Gerven L., Boeckxstaens G., Hellings P. Tmipramine and methylpeni- dat. Treatment of hyperactive boys // Arch. Gen. Psychiat. 2012
- [23] Elena Sergienko Some problems of health improvement of children with perinatal pathology in the conditions of a modern metropolis 2002
- [24] E.V. Rogova, S.V. Barinov, T.I. Dolgikh Molecular genetic examination of hearing impaired and deaf children /// News of otorhinolaryngology and logopathology 2014