

Assessing “quality of life” in twins with pathology in the throat, ear, and nasal organs

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ABSTRACT: Currently, there is no exact data on the occurrence of ENT (Throat, ears and nasal organs) pathologies in twins. This issue requires further study of such pathologies. The work is devoted to one of the actual problems of otorhinolaryngology in the study of morphological changes in the tonsils in the chronic course of inflammation in monozygous twins and to compare them with morphological changes in inflammation of the tonsils in non-twins. This work is based on studies of a micropreparation of palatine tonsils after tonsillectomy in 12 pairs of identical twins operated in the ENT department of the Bukhara multiprofile children's hospital from 2000 to 2018. The anatomical location of the palatine tonsils and histological studies are described in detail.

KEYWORDS: Throat, ears and nasal organs, ENT pathologies, twins, quality of life

INTRODUCTION

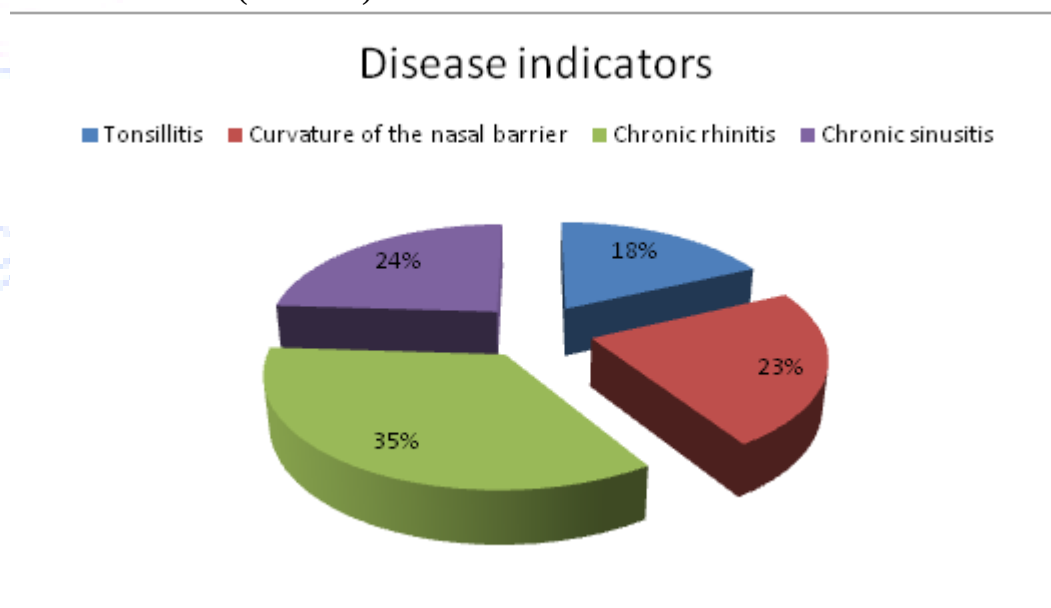
According to Lucas L. Boer, not only the prevalence of otorhinolaryngological disorders in babies born to twins was observed, but also the prevalence of other gastroenterological, neurological and ophthalmic diseases (1). For example, twins have many congenital and acquired abnormalities, which are mainly caused by curvature of the nasal barrier in twins. (2,3) In the literature, there are extremely rare indications of the study of twins in the aspect of ENT pathology. However, M.I. Wolfkovich in 1930 expressed the opinion that it was the study of twins that could provide the richest material for studying the etiology of ENT diseases. Currently, some scientists in the study of a number of otorhinolaryngological problems began to use the twin method (4). However, their messages concern only individual cases, and they lack an analysis of the state of otorhinolaryngological pathology among twins, which is of undoubted scientific and practical interest (6). Intra-paired similarities and differences of twins are due not only to hereditary, but also exogenous factors. When examining ENT organs in twins, it is necessary to use it with a comprehensive and comprehensive consideration of the features

associated with unfavorable intrauterine development and the course of labor in multiple pregnancies, as well as taking into account the influence of the mother's health on the intrauterine development of twins. (5) A number of authors indicate that 90% of children with congenital deafness have hearing parents, and there are no other relatives with hearing impairments in their families. Finding out the family history suggests the possibility of a hereditary nature of the disease (6). The increasing importance for early diagnosis, prevention and prognosis of ENT pathology is acquiring medical and genetic counseling of families (5). At all times, scientists have solved the issue of the role of the influence of heredity and the environment on the incidence, otorhinolaryngology in this regard was no exception. Dynamic study of twins could answer many unresolved problems. (4) In otorhinolaryngology, the absence of fundamental research on diseases of the ENT organs in twins and the relevance of this study has been proven today. The study of diseases of the ENT organs in twins in otorhinolaryngology can solve many unproven problems. Thus, DZ twins were more often diagnosed with other ENT pathologies: chronic rhinitis, chronic tubo-otitis, deformation of the nasal septum, grade III adenoids, hypertrophy of the palatine tonsils, exudative otitis media. Hearing impairment always took place against the background of other concomitant ENT pathology. There is a close relationship between auditory function, speech development and the state of the Navy (attention, volume of auditory-speech memory)

Mikhailov's data and studies shed light on this question: When comparing the results of the examination of M3 and DZ twins, it was found that among monozygotic pairs of twins there was a significant predominance of girls (63.0%), while in dizygotic twin pairs, there was a predominance of boys (53.7%). (7) A comparative analysis of the data on the health status of the parents of M3 and DZ twins showed that the most common somatic pathology among them was the gastrointestinal tract pathology 45.5% and 63.1%, respectively, further, the MPS pathology was noted in terms of frequency of occurrence (45.6%), while in parents of M3 pairs of twins, the pathology of the genitourinary system was diagnosed much less frequently (22.7%). The parents of M3 pairs of twins were significantly more likely to have pathologies of the organ of vision and the endocrine system than the parents of DZ twins, and the pathology of the immune and respiratory systems was more often found in the parents of DZ twins (31.6%, 21.0%, 17.5% respectively). (7) Analysis of anamnestic data showed that chronic tonsillitis was most often diagnosed in parents of both M3 and DZ pairs of twins in 39.1% and 45.6%, respectively. At the same time, the pathology in question was noted more often in the parents of DZ pairs of twins. Deformity of the nasal septum in parents of M3 pairs of twins was diagnosed in 22.7%, while this pathology was not revealed in the parents of the examined DZ pairs of twins. The parents of M3 and DZ twins before the onset of multiple pregnancies were negatively influenced by various factors. Analysis of anamnestic data showed that the parents of M3 twins were more likely to be exposed to occupational hazards than the parents of DZ twins. (9) ENT pathologies, especially chronic ones, are more common in twins. It depends on the gestational age of the mother, the placental abruption index and the position of the children in relation to each other at birth. (9) The following table shows the most common diseases in percentages, while most diseases are chronic and associated with changes in the physiological properties of organs ... Comparative analysis of the anamnestic data on the course of monochorionic and bichorionic multiple pregnancies showed that monochorionic multiple pregnancies occur with a greater number of complications (toxicosis, hesgosis) than bichorionic multiple pregnancies. The average duration of a

monochorionic multiple pregnancy was 36-37 weeks, and the average duration of a bichorionic multiple pregnancy was 37-38 weeks. (11)

Toxicosis in the first half of pregnancy was noted in 51.9% at the birth of M3 twins and in 43.1% of mothers of pregnant women with DZ twins, which is 1.2 times more frequent in monochorionic multiple pregnancies. Gesgoz in the second half of pregnancy was more often diagnosed in monochorionic multiple pregnancies than in bichorionic multiple pregnancies. (12) 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 monochorionic twins is an order of magnitude higher than bichorionic ones (10). 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). Today, mutagenic diseases and chronic conditions in the ENT organs are also observed due to the influence of various factors on the child during pregnancy with twins. An increase in the number of artificially created products instead of natural ones, an increase in the variety of various ingredients affects the embryonic development of the child's body during pregnancy, especially hearing, smell and other analyzers. Based on the studies of C. Bachert, J. Bousquet, the most frequent contingent of diseases in twins was formed. (Picture 1)



Low values of the Apgar scores indicate a decrease in the adaptive capabilities of newborns in the neonatal period. From the above data, it follows that of all twins, newborn M3 twin boys had the lowest adaptive capabilities in the neonatal period. (Lous J. 2009) The data obtained once again confirm that multiple pregnancies and childbirth should be considered as pathological due to the large number of complications arising during their course that negatively affect the further somatic and psychomotor development of children. Comparative analysis of the anamnestic data on the health status of M3 and DZ

twins showed that both M3 and DZ twins ranked first in terms of the prevalence of diseases of the nervous system (72.2% and 66.7%, respectively). Neurological complications are a significant problem of multiple pregnancies [13]. The greatest number of neurological complications is observed in premature infants and in children with hypotrophy, as well as in the presence of FFTS. Stillbirth and neonatal mortality in multiple pregnancies are recorded 3 times more often than in single pregnancies, and are, respectively, 14.9 and 19.8 per 1000 live births. The financial costs of providing medical care to each child from twins with multiple pregnancies during the first 5 years of life are 2 times higher than those for children born with singleton pregnancies (15) The predominance of neurological disorders remains the main pathological factor in pregnancy or twin pregnancy, the main causes of which are hypoxia and ischemic pathology, delayed development of ENT organs and the presence of various pathologies, including due to lack of oxygen. This is due to increased pressure in the placental cavity and spasms. (10)

Moreover, the amount of ante- and / or perinatal pathology transferred affects the severity of the ENT pathology. So, if M3 and DZ twins with one pathology of the indicated periods were diagnosed with chronic tonsillitis of a compensated form, adenoids of I-II degree, and M3 and DZ twins who had more than one pathology of ante- and inranatal periods, the form of chronic tonsillitis was decompensated, and adenoid vegetations were of a greater degree, the deformation of the nasal septum was much more often accompanied by impaired nasal breathing and vasomotor rhinitis, and this ENT pathology developed in them at an earlier age than in children with a favorable course of the ante- and perinatal periods. (Ganina N.V. The functional state of the motor structures of the brain and spinal cord in children with enuresis: Abstract of the thesis. Diss 2000) During the study of hearing function during the study of Larisa Aleksandrovna, the following information was obtained: hearing pathology in M3 twins was established more often than in DZ twins (29.7% and 27.4%, respectively). Analysis of intra-pair similarity showed that in both DZ twins of the pair, hearing pathology was diagnosed in 18.9%, and in M3 pairs - in 18.5%. It was revealed that in the DZ pair, hearing pathology more often occurs in the twin born first than in the twin born second (53.1% and 46.9%, respectively), and in the M3 pair, on the contrary, hearing pathology is more often observed in the twin born second than that of the first-born twin (56.3% and 43.7%, respectively). (14) Children who have undergone pathology of the perinatal period should be under the supervision of such specialists as an otorhinolaryngologist, neurologist, psychologist, speech therapist for the purpose of early diagnosis, the correct choice of treatment tactics and prevention of hearing and speech disorders. And with the prevention of the development of ENT diseases and, above all, hearing impairments in children who have undergone pathology of the perinatal period, we should use the program of observation and rehabilitation we have developed. Today, the influence of various factors, such as radiation, ecology, condensates and emulsions added to food, strongly affect the well-developed organs of the child's nervous system during pregnancy. In many pregnancies, the consequences are even greater, leading to an increase in various birth defects in twins. (13) There are various problems in the study of otorhinolaryngological diseases in children, the lack of sufficient data in the study of this situation requires a deeper analysis of this area.

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