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АЛЕРГИЧЕСКИЕ РЕАКЦИИ НА ФОНЕ ВРОЖДЁННЫХ ПОРОКОВ СЕРДЦА У ДЕТЕЙ РАННЕГО ВОЗРАСТА

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АННОТАЦИЯ

Врожденные пороки сердца (ВПС) являются важной проблемой педиатрии вследствие их высокой распространенности и необходимости ранней хирургической коррекции в связи с значительными нарушениями здоровья и ограничением жизнедеятельности детей. По данным ВОЗ, ВПС встречается у 0,7-1,7% новорождённых детей. В некоторых случаях, быстрое прогрессирование стадий течения врождённого порока сердца определяется не только его тяжестью, но так же влиянием патологических состояний. В настоящее время аллергия принадлежит к наиболее распространенным патологическим состояниям у детей. По данным эпидемиологических исследований, аллергическими реакциями (АР) страдает до 25% детей. Это выдвигает проблему аллергической патологии на одно из первых мест в современной педиатрии. За последние два десятилетия сохраняется тенденция к росту распространенности АР в детском возрасте. В развитии их важная роль принадлежит взаимодействию генетических и средовых факторов с последующим развитием сенсibilизации организма, но в целом непосредственные причины роста распространенности АР остаются недостаточно ясными. Проведенные во многих странах эпидемиологические исследования показали, что высокая распространенность аллергопатологии ассоциируется с западным образом жизни, урбанизацией, загрязнением окружающей среды химическими соединениями, с высоким социально-экономическим статусом.

Ключевые слова: врожденный порок сердца, аллергические реакции, коморбидная патология, риноконъюнктивит, распространенность.

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ALLERGIC REACTIONS ON THE BACKGROUND OF CONGENITAL HEART DEFECTS IN YOUNG CHILDREN

ANNOTATION

Congenital heart defects (CHDs) are an important problem in pediatrics due to their high prevalence and the need for early surgical correction due to significant health problems and disability in children. according to who, CHD occurs in 0.7-1.7% of newborns. In some cases, the rapid progression of the stages of the course of congenital heart disease is determined not only by its severity, but also by the influence of pathological conditions. Currently, allergies are among the most common pathological conditions in children. According to epidemiological studies, up to 25% of children suffer from allergic reactions (AR). This puts forward the problem of allergic pathology to one of the first places in modern pediatrics. Over the past two decades, there has been an upward trend in the prevalence of AR in childhood. In their development, an important role belongs to the interaction of genetic and environmental factors with the subsequent development of sensitization of the body, but in general, the direct causes of the increase in the prevalence of AR remain insufficiently clear. Epidemiological studies conducted in many countries have shown that a high prevalence of allergic pathology is associated with a Western lifestyle, urbanization, environmental pollution with chemical compounds, and a high socioeconomic status.

Keywords: congenital heart disease, allergic reactions, comorbid pathology, rhinoconjunctivitis, prevalence.

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YOSH BOLALARDA TUG'MA YURAK NUQSONLARI FONIDAGI ALLERGIK REAKSIYALAR

ANNOTATSIYA

Tug'ma yurak nuqsonlari (TYuN) bolalarda jiddiy sog'liq muammolari va nogironlik tufayli ularning yuqori tarqalishi va erta jarrohlik tuzatish zarurati tufayli pediatriyada muhim muammo hisoblanadi. JSST ma'lumotlariga ko'ra, TYuN yangi tug'ilgan chaqaloqlarning 0,7-1,7 foizida uchraydi. Ba'zi hollarda TYuN kasalligi bosqichlarining tez rivojlanishi nafaqat uning og'irligi, balki patologik holatlarning ta'siri bilan ham belgilanadi. Hozirgi vaqtda allergiya bolalarda eng ko'p uchraydigan patologik holatlar qatoriga kiradi. Epidemiologik tadqiqotlarga ko'ra, bolalarning 25% gacha allergik reaksiyalar (AR) dan aziyat chekmoqda. Bu allergik patologiya muammosini zamonaviy pediatriyada birinchi o'rinlardan biriga qo'yadi. So'nggi yigirma yil ichida bolalik davrida AR tarqalishida o'sish tendensiyasi kuzatildi. Ularning rivojlanishida irsiy va atrof-muhit omillarining organizmning sensibilizatsiyasining keyingi rivojlanishi bilan o'zaro ta'siri muhim rol o'ynaydi, ammo umuman olganda, AR tarqalishining ko'payishining bevosita sabablari yetarli darajada aniq emas. Ko'pgina mamlakatlarda o'tkazilgan epidemiologik tadqiqotlar shuni ko'rsatdiki, allergik patologiyaning yuqori tarqalishi G'arb turmush tarzi, urbanizatsiya, atrof-muhitning kimyoviy birikmalar bilan ifloslanishi va yuqori ijtimoiy-iqtisodiy holat bilan bog'liq.

Kalit so'zlar: tug'ma yurak nuqsoni, allergik reaksiyalar, komorbid patologiyalar, rinokon'yunktivit, tarqalish.

Relevance. Congenital heart defects (CHDs) are the most common birth defects. In children with CHD, in addition to the presence of anomalies, allergic reactions (AR) are very common [5, P. 86-88; 8, P. 117-119]. Studies studying the prevalence of AR in the world have revealed that climate change, environmental disturbances, products containing preservatives and other factors contributing to the wide spread of AR [1, P. 145-146; 3, P. 62-65; 4, P. 77]. The presence of CHD with AR is not well covered in the literature. Combined allergic exposure to these factors leads to immune dysregulation associated with allergic inflammation in early life [1, P. 69-75; 2, P. 27-29; 6, P. 27; 7, P. 114-115].

The relevance of this problem is due not only to the high prevalence, but also to the tendency to increase the proportion of more severe CHD with frequent adverse outcomes in the first year of life.

The purpose of this study was to allergic reactions based on the analysis of data from the pediatric cardiosurgical department of the Regional Children's Multidisciplinary Medical Center (ODMC) of the city of Samarkand, to improve the treatment of children with CHD.

Subjects and methods. A survey of 103 children aged from 1 month to 3 years with septal congenital heart disease, who were treated inpatiently in the Department of Cardiac Surgery and outpatient examination at the Regional Medical and Medical Center of Samarkand in the period from 2021 to 2022, was carried out.

To achieve this goal, complaints and anamnestic data were studied. The following clinical and instrumental studies were carried out: an objective examination of the child; the state of health of all examined children was studied according to the questionnaire; anthropometric

data (weight, height, head circumference, chest circumference), Quetelet body mass index ($(\text{kg}/\text{m}^2) = \text{weight (kg)} : \text{height}^2 (\text{m}^2)$).

The diagnosis of congenital septal heart disease (ventricular septal defect and/or atrial septal defect) in children was established according to ICD-10 criteria. From the anamnestic data, parents were interviewed for the presence of somatic diseases, bad habits (smoking, alcohol consumption), occupational hazards at work, and the age of the mother at the time of birth. Parent-reported data on allergic reactions to drugs, foods, and plant pollen were collected. Registration of the obtained clinical and anamnestic data was carried out in the questionnaire developed by us.

The diagnosis was also confirmed by echocardiography (EchoCG) in order to identify the anatomical structure and function of the heart, large vessels according to the standard method. In addition to echocardiography of the heart, all children underwent electrocardiography (ECG), chest radiography, electroencephalography (EEG), neurosonography, and ultrasound examination (ultrasound) of the abdominal organs. From laboratory research methods: a complete blood count, a biochemical blood test, an enzyme immunoassay to detect atypical microflora, the determination of cytokines, an immunogram, and also studied the level of growth hormones and the thyroid gland.

Results of research. When studying the frequency of AR among children with CHD in the districts of Samarkand and regions and the Republic of Uzbekistan, according to the appeal and hospitalization in the pediatric cardiosurgical department, it was revealed: in the Urgut district 8.73% (n=9), in the Ishtikhan district 6.79 % (n=7), in Kushrabad region 2.91% (n=3) and in Jizzakh region 0.97% (n=1).

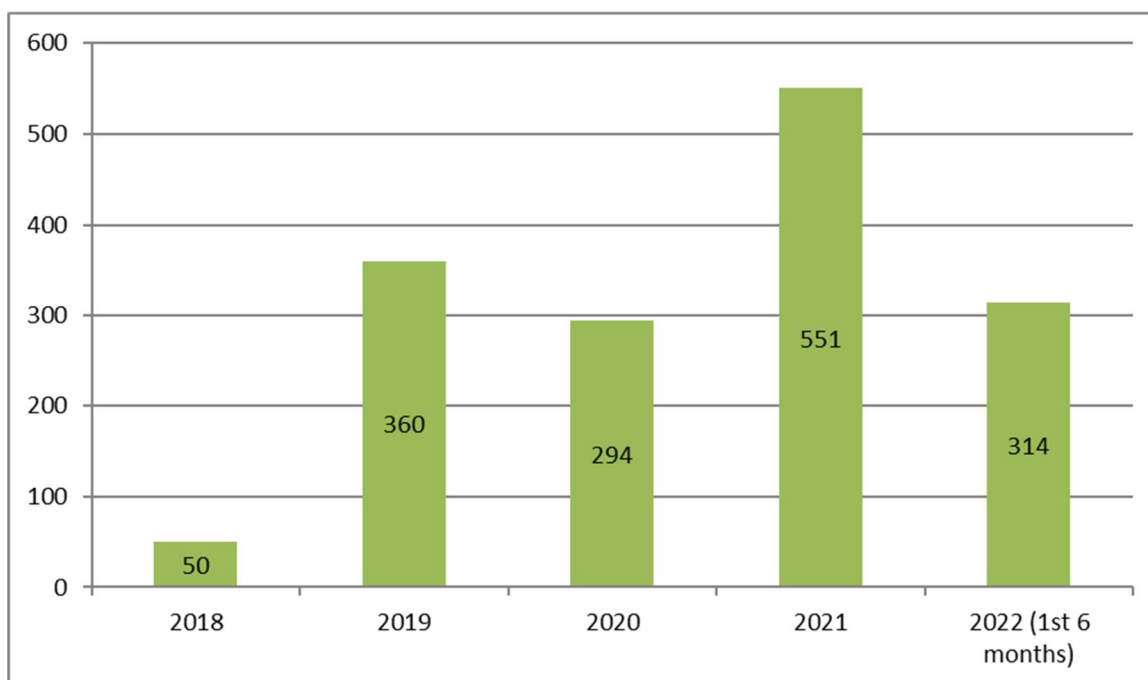


Fig. 1 The number of patients admitted to the Department of Cardiac Surgery of the Samarkand ODMMC in the period 2018-2022.

A significant increase in the number of operated patients with CHD during the period 2018-2022 is noted, that is, from year to year the number of operated patients almost doubled (Fig. 2.).

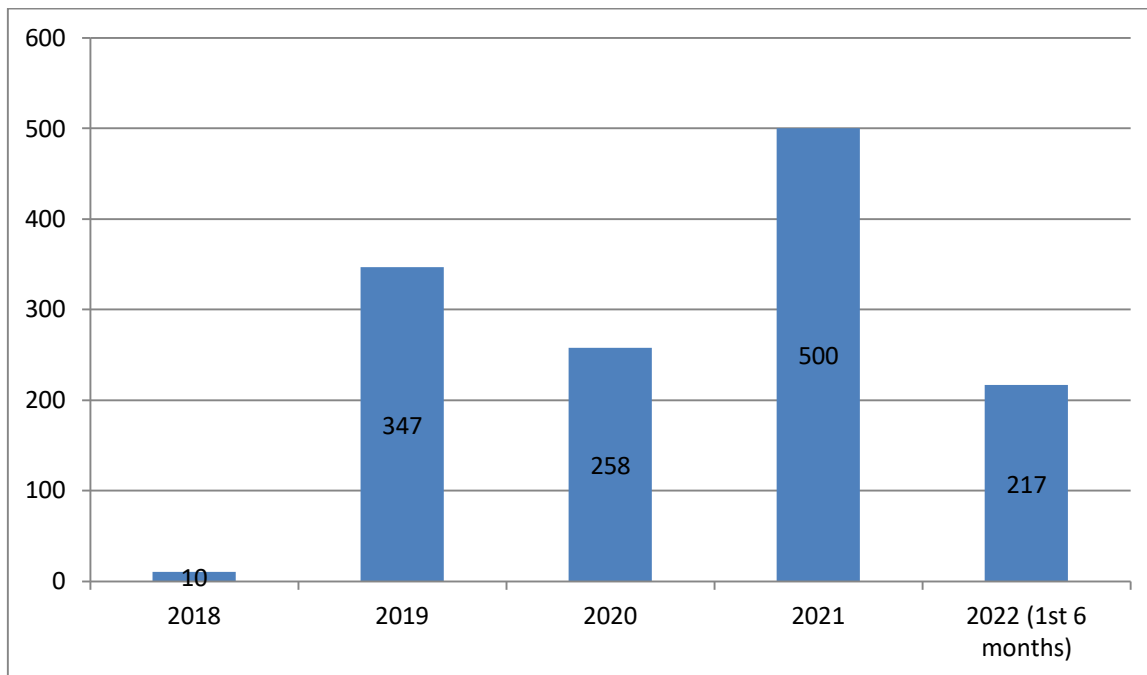


Fig. 2 The number of operated patients with CHD in the period 2018-2022

According to the literature, the ratio of patients depending on gender is contradictory. According to the results of our research, girls numerically prevailed over boys, so out of the examined children there were 48 boys (46.60%) and 55 girls (53.39%).

The frequency of AR in children with septal CHD was 19.41% (n=20).

Among allergic reactions, food allergy 55% (n=11), drug allergy 30% (n=6) and allergic rhinitis 15% (n=3) were observed (Fig. 3).

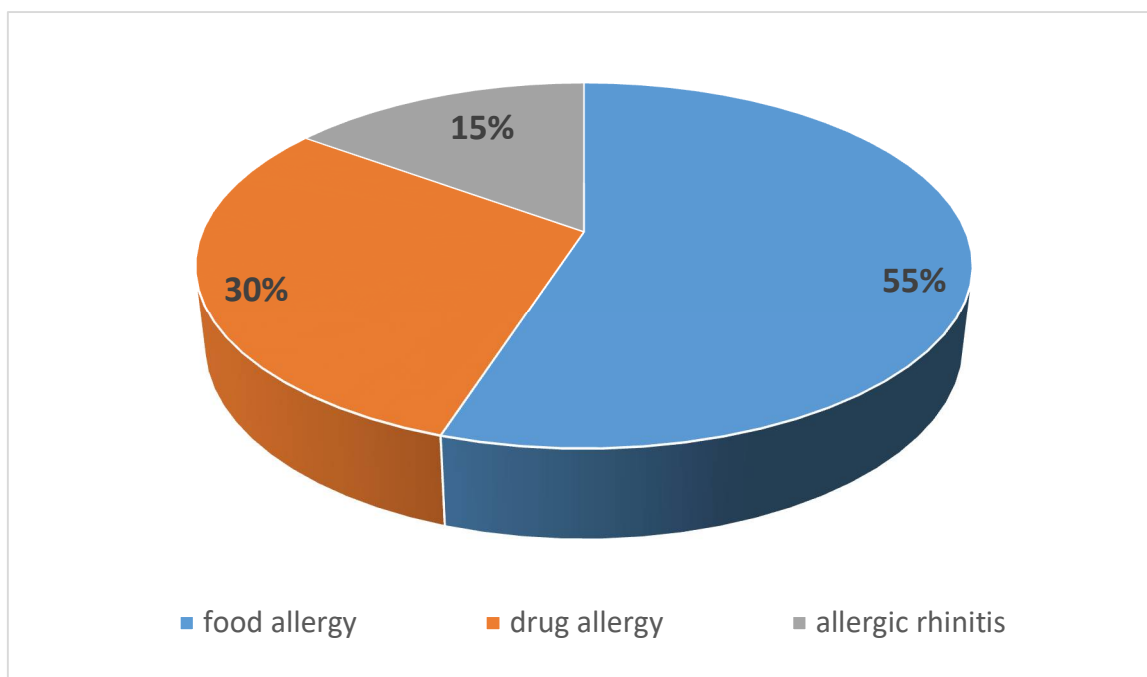


Fig. 3 Allergic reactions to allergens

The analysis showed that most often AR was noted for drugs such as azithromycin (11.7%), chiconcil (12.5%); food products: raspberries + strawberries (17.8%), tangerines + oranges (14.5%); chocolate (17.7%); on plant pollen (12.6%). In 11.4% of cases, the cause of AR was unknown. An allergic reaction in children manifested itself in the form of rashes on the body, rhinoconjunctivitis, itching, redness and peeling of the skin. All children with AR received antihistamines, with the elimination of the causative factor.

Conclusions. Our data allow us to classify sick children with congenital heart disease as a risk group for the formation of AR, which are caused by pathological changes in the immune status. It is also due to the fact that these changes may also affect the hemodynamics of the liver.

Currently, the number of children with CHD is increasing and, accordingly, in the treatment of children with CHD, along with surgical treatment, it is necessary to correct comorbid pathology, in this case,

allergic reactions.

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