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CLINICAL FEATURES OF HEART DAMAGE IN ACUTE RHEUMATIC FEVER IN CHILDREN

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ANNOTATION
Acute rheumatic fever (ARF) is a systemic inflammatory lesion of the connective tissue with a predominant localization of the process in the cardiovascular system and the musculoskeletal system. With rheumatism, any organs and systems can be affected: the brain, kidneys, liver. ARF occurs predominantly in childhood (7-15 years) and young age, and also occupies an important place in the overall structure of the incidence of cardiovascular diseases and mortality from them.

Keywords: children, rheumatic heart disease, pediatrics, chorea

BOLALARDA O‘TKIR REVMATIK ISITMADA YURAK ZARARLANISHLARINING KLINIK XUSUSIYATLARI

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ANNATATSIYA
O'tkir revmatik isitma (ARF) - yurak-qon tomir tizimi va tayanch-harakat tizimidagi jarayonning ustun lokalizatsiyasi bilan biriktiruvchi to'qimalarning tizimli yallig'lanishli shikastlanishi. Revmatizm bilan har qanday organlar va tizimlar ta'sir qilishi mumkin: miya, buyraklar, jigar. ARF asosan bolalik (7-15 yosh) va yosh yoshda uchraydi, shuningdek, yurak-qon tomir kasalliklari va ulardan o'lim ko'rsatkichlarining umumiy tarkibida muhim o'rin tutadi.

Kalit so'zlar: bolalar, revmatik yurak kasalliklari, pediatriya, xorea

Iqtibos uchun: Shamsieva Eleonora Rinatovna Satibaldieva Nasiba Rajabovna, Abdullaeva Dilorom Telmanovna. Bolalarda o‘tkir revmatik isitmada yurak zararlanishlarining klinik xususiyatlari

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КЛИНИЧЕСКИЕ ОСОБЕННОСТИ ПОРОЖЕНИЯ СЕРДЦА ПРИ ОСТРОЙ РЕВМАТИЧЕСКОЙ ЛИХОРАДКИ У ДЕТЕЙ

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Аннотация

Острая ревматическая лихорадка (ОРЛ) - системное воспалительное поражение соединительной ткани с преимущественной локализацией процесса в сердечно-сосудистой системе и опорно-двигательном аппарате. При ревматизме могут поражаться любые органы и системы: мозг, почки, печень. ОРЛ возникает преимущественно в детском (7-15 лет) и молодом возрасте, а также занимает важное место в общей структуре заболеваемости сердечно-сосудистыми болезнями и смертности от них.

Ключевые слова: дети, ревмокардиты, педиатрия, хорея

Актуальность

Острая ревматическая лихорадка (ОРЛ) - системное воспалительное поражение соединительной ткани с преимущественной локализацией процесса в сердечно-сосудистой системе и опорно-двигательном аппарате. При ревматизме могут поражаться любые органы и системы: мозг, почки, печень. ОРЛ возникает преимущественно в детском (7-15 лет) и молодом возрасте, а также занимает важное место в общей структуре заболеваемости сердечно-сосудистыми болезнями и смертности от них. Поражение сердца при ОРЛ является ведущим синдромом. Ревматический процесс может поражать эндокард и перикард, но наиболее часто развивается по типу эндомиокардита. В связи с тем, что на практике нередко трудно выделить симптомы, свойственные ревматическому миокардиту, эндокардиту или перикардиту, используется термин “ревмокардит”, под которым подразумевается одновременное поражение ревматическим процессом мио- и эндокарда, что чаще наблюдается при первой атаке ревматизма в первые недели от ее начала. Несмотря на трудности, все же желательно уточнить локализацию процесса. Результаты эпидемиологических данных, клинических наблюдений, микробиологических, иммунологических и экспериментальных исследований убедительно показывают связь стрептококковой носоглоточной инфекции (β-гемолитического стрептококка группы А) с ревматизмом. Подтверждением стрептококковой этиологии ревматизма являются: предшествующая атаке ревматизма стрептококковая инфекция (ангина, фарингит); увеличение заболеваемости ревматизмом во время вспышек ОРЗ, вызванной β -гемолитическим стрептококком группы А; повышение титров стрептококковых антител (АСЛ, АСГ, АСК);

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возможность резкого снижения заболеваемости ревматизмом и его рецидивов в результате противострептококковой профилактики и активного лечения стрептококковых очагов инфекции. Стрептококковая этиология ревматизма характерна для “классических” его форм, протекающих остро, с вовлечением в процесс суставов. Почти не улавливается связь между стрептококковой инфекцией и затяжным, латентным или часто рецидивирующим течением ревматизма. При последних формах течения ревматизма отсутствует повышение титров стрептококковых антител, не эффективна бициллино- профилактика рецидивов ревматизма.

Цель работы. На основании клинических и лабораторно - инструментальных данных оценить возможные варианты течения поражения сердца при Острой ревматической лихорадке.

Topicality

Acute rheumatic fever (ORL) is a systemic inflammatory lesion of the connective tissue with a predominant localization of the process in the cardiovascular system and musculoskeletal system. With rheumatism, any organs and systems can be affected: the brain, kidneys, liver. ORL occurs mainly in childhood (7-15 years) and young age, and also occupies an important place in the overall structure of morbidity and mortality from cardiovascular diseases. The defeat of the heart in ORL is the leading syndrome. The rheumatic process can affect the endocardium and pericardium, but most often develops according to the type of endomyocarditis. Due to the fact that in practice it is often difficult to isolate the symptoms characteristic of rheumatic myocarditis, endocarditis or pericarditis, the term "rheumatic heart disease" is used, which means the simultaneous defeat of the rheumatic process of myo- and endocardium, which is more often observed during the first attack of rheumatism in the first weeks from its beginning. Despite the difficulties, it is still desirable to clarify the localization of the process. The results of epidemiological data, clinical observations, microbiological, immunological and experimental studies convincingly show the relationship of streptococcal nasopharyngeal infection (β-hemolytic streptococcus group A) with rheumatism. Confirmation of the streptococcal etiology of rheumatism are: streptococcal infection (sore throat, pharyngitis) preceding the attack of rheumatism; increased incidence of rheumatism during outbreaks of acute respiratory infections caused by β-hemolytic group A streptococcus; increased titers of streptococcal antibodies (ASL, ASG, ASA); the possibility of a sharp decrease in the incidence of rheumatism and its relapses as a result of anti-streptococcal prophylaxis and active treatment of streptococcal foci of infection. The streptococcal etiology of rheumatism is characteristic of its "classical" forms, which occur acutely, with the involvement of joints in the process. There is almost no link between streptococcal infection and the protracted, latent or often recurrent course of rheumatism. In the latter forms of the course of rheumatism, there is no increase in the titers of streptococcal antibodies, bicillin prevention of relapses of rheumatism is not effective.

The Purpose of the Work

Based on clinical and laboratory - instrumental data, to assess possible variants of the course of heart damage in Acute rheumatic fever.

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Materials and Methods:
An analysis of the medical histories of 16 patients diagnosed with ORL, observed from September to November 2022, was carried out on the basis of the children's cardiorheumatology department of the first clinic of the Tashkent Medical Academy. Clinical, laboratory- instrumental features of the variants of the course of ORL in children were evaluated.

Outcomes
According to the results of the data obtained, 10 (62.2%)) boys and 6 (37.5%)) were more likely to fall ill with ORL. The early debut of the disease prevailed, the start of which was more often noted at school age by 16 patients (100%). Patients with myocardium prevailed - 7 patients (in 43.7 % of cases), which occurred mainly with damage to the bicuspid valve in 3 patients (18.75%). The pericardium was less common - 2 patients (in 25% of patients). Endomyocarditis was noted in 4 patients (in 16% of cases). A feature of the course of the disease was the relatively rare development of the formation of rheumatic heart disease - 5 patients (32%), with mitral valve stenosis in 3 patients (18.7%).
The asymptomatic course of the rheumatic process is characterized by uncertain clinical symptoms in the form of weakness, decreased physical activity, moderate shortness of breath after overload, subfebrile or normal temperature, increased excitability, irritability, sleep disturbance.
The rheumatic process was observed in 6 patients (37.5%) with mild clinical symptoms. Such a course of the rheumatic process often leads to great diagnostic difficulties and late recognition of the disease. In the latent course of acute rheumatic fever in 37.5% of cases, it was found that rheumatic heart disease occurred during the first rheumatic attack.
The diagnostic criteria for rheumatic carditis were the complaints of patients for: pain or discomfort in the heart, shortness of breath, palpitations, tachycardia, weakening of the tone and noise at the apex of the heart: diastolic and systolic (weak, moderate, strong), as well as symptoms of pericarditis, an increase in the size of the heart.
When evaluating laboratory data, attention was drawn to the prevalence of low in 6 patients (37.5%) and 5 patients (31.2%) of the degree of activity of the immunopathological process. A high degree of activity of the process was found in 5 patients (31.2%) patients. Immunological changes were characterized by an increase in the content of IgG, a decrease in the activity of T-suppressors, the presence of antibodies to streptolisin O, hyaluronidase, A - polysaccharide, noted in 11 % of patients.
With an ECG study, a decrease in the amplitude of the P and T teeth, an increase in the duration of electrical systole, a slowdown in AV conduction, and symptoms of circulatory failure were revealed. Incomplete atrioventricular blockade of the first degree, which was maintained for three to five days, then disappeared, reflecting the cessation of the exudative phase of myocarditis. With recurrent rheumatic heart disease against the background of heart defects, some patients showed changes in *the QRS complex,* a displacement of *the interval S - T* and the T wave, which indicated a violation of the processes of repolarization of the heart muscle. In half of the patients, sinus tachycardia, arrhythmia were observed; in some - extrasystole, mainly ventricular. With a long time, damage to the valve

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apparatus of the heart, mainly with mitral stenosis, was often detected atrial fibrillation, indicating the severity of dystrophic and sclerotic processes in the atrial myocardium and the heart muscle as a whole. Phonocardiographically, with primary rheumatic heart disease, a decrease in the amplitude of I and II tones was detected. Approximately 2/3 of patients above the region of the apex of the heart or at the Botkin point, systolic noise was recorded. Methods of rheocardiography, polycardiography, kinetocardiography, etc., made it possible to detect violations of myocardial contractility, more pronounced in the active rheumatic process.

Echocardiography in combination with Doppler ultrasonography had high sensitivity and specificity for the diagnosis of rheumatic heart disease and rheumatic heart defects, made it possible to identify changes in the heart valves and functional disorders.

With Doppler ultrasonography, the severity of mitral regurgitation and the gradient of blood pressure in the aortic valve zone were determined.

Echocardiographic signs of rheumatic endocarditis of the mitral valve: showed the presence of vegetation on the valves, hypokinesia of the posterior mitral valve, mitral regurgitation, transient domed diastolic bending of the anterior mitral valve. Echocardiography and Doppler ultrasonography made it possible to reduce the need for cardiac catheterization for the diagnosis of lesions of its valve apparatus.

Findings

Diagnosis of ORL in children is currently not difficult. However, due to the increase in cases of acute rheumatic fever with a minimum degree of activity, it is difficult to establish a diagnosis in a timely manner. This is due to the fact that children and parents do not go to the pediatrician in a timely manner and children are admitted to the hospital late, with complications, and subsequently inaccurately receive bicillin therapy, chronic foci of infection are not sanitized in a timely manner.

In general, summarizing the above, it should be noted that the timely diagnosis and treatment of acute rheumatic fever in children is possible only in a hospital setting (conducting comprehensive studies), with the participation of narrow specialists (ENT, dentist, neurologist).

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