World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-33, April 2024
ISSN: 2749-3644

VEGETATIVE STATE OF CHILDREN WITH PREMATURE EXCITATION OF THE VENTRICLES OF THE HEART

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Article history:
Received: January 20th 2024
Accepted: March 14th 2024

Abstract:

Ventricular preexcitation syndrome means that the ventricular myocardium is activated by atrial impulses conducted along the accessory pathway (APT) before the impulses reach the ventricles through the normal conduction system of the heart.

Manifestations of PVA are rare - from 0.15 to 3.1% of the general population, including 9% of the total number of children with cardiac arrhythmias. This disease manifests itself in different forms - from constant clinical and electrophysiological manifestations in the manifest form to the absence of any subjective and objective symptoms in the latent form.

The clinical significance of PVA is determined by the fact that almost 80.0% of patients sooner or later develop tachyarrhythmic attacks, both paroxysmal (i.e., transient) and chronic (permanently recurrent form) tachyarrhythmias, atrial fibrillation, atrial flutter, which when under certain conditions, they transform into atrial and ventricular fibrillation, which poses a threat to the patient's life.

Keywords: arrhythmia, ventricular preexcitation, children, hearts.

INTRODUCTION. An analysis of the cited literature sources shows that the frequency of PVA both among adults and among children has not been established, there is no consensus on the mechanisms of development of PVH, cardiac and extracardiac factors transforming PVA into tachyarrhythmias have not been established, diagnostic errors in the interpretation of ECG are frequent - manifestations of PVA (infarction). myocardium, myocarditis, congenital and acquired heart defects, MVP, thyrotoxicosis, neurosis, syncope, etc.) [3]. Despite the successes achieved in the study of the electrophysiological characteristics of PAP, the pathogenesis of arrhythmias associated with them [4], the effects of antiarrhythmic drugs, indications and tactics for surgical treatment of PPV, it remains relevant to identify reliable diagnostic criteria that allow timely recognition of life-threatening arrhythmias in these patients [5]. Despite the numerous methods proposed in the diagnosis of PVH, ECG research until recently remains the only method that allows topical diagnosis of DPP in sick children with PVA.

PURPOSE OF THE STUDY. To study and provide general clinical characteristics of sick children with various forms of PVA in school-age children in terms of additional diagnostic capabilities of electrocardiography.

The examined children with manifestations of PVA presented a wide variety of complaints related to age, gender and had different vegetative colors. Thus, respectively, boys and girls complained of a feeling of numbness, "pins and needles" (paresthesia) on the skin of the trunk, on the extremities (14.04 and 8.0% p>0.05), general or regional (mainly on the palm and sole) sweating (21.1 and 20.0% p>0.05), a feeling of "hotness" during emotional and physical stress (8.77 and 12.0% p>0.05), could not tolerate stuffy rooms, driving in a car (10.5 and 16.0% p>0.05), some had intolerance to cold weather (12.3 and 12.0% p>0.05), headaches were noted (8.77 and 16.0 % p<0.048), at times of a pulsating nature (5.26% and 8.0% p>0.05), accompanied by "ringing in the ears", darkening of the eyes, a feeling of heartbeat, which resembles the picture of a symptom complex - presyncopal phenomena. 5.26 and 12.0% of children (boys and girls) reported a feeling of lack of air and "sighs", pain in the limbs (3.51 and 4.0% p>0.05). It is noteworthy that 35.0% of girls and 24.6% of boys had complaints of short-term pain in the heart with unclear localization, which were often "aching", "pressing" in nature (24.0% and 17. 5% p>0.05), less often "stabbing" (12.0% 7.02% p>0.05), accompanied by a feeling of

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Available Online at: https://www.scholarexpress.net
Volume-33, April 2024
ISSN: 2749-3644

"palpitations" and "interruptions" (7.02% and 4.0% p> 0.03). These complaints were more often provoked by psycho-emotional and physical stress (during physical education lessons) and went away on their own; children rarely consulted a doctor. It is known that [19] in children, cardialgia that occurs against the background of psychoemotional stress is most often of a psychogenic nature and is not based on myocardial ischemia. However, cardialgia due to physical activity, detected in 8.0% and 10.5% of girls and boys, respectively (p>0.05), does not completely exclude the possibility of ischemic pain, especially in children with organic substrates in the heart (carditis , tonsillogenic intoxication, etc.).

Some children, boys and girls, respectively, had complaints of intolerance to dairy products (3.51% and 12.0% p<0.038), legumes (5.26% and 4.0% p>0.05), had rashes on the body (anamnetically) after eating these foods (7.01% and 8.0% p<0.05), back pain abdomen with indistinct localization, unrelated to meals (10.5% 8.0% p>0.05), decreased appetite (15.8% and 20.0% p>0.05).

The neuropsychic environment of the examined children in 21.1 – 16.0% of cases (p>0.05), respectively, in boys and girls was characterized by a rapid change of mood (lability), some haste in actions.

Other children looked adynamic, sluggish (7.0% and 24.0% p<0.01), not decisive in lessons (5.26% and 12.0% p<0.01), their sleep in 14.04% and 12.0% (p>0.05) cases was late, difficulty in falling asleep was noted, sleep was short, intermittent, restless, with dreams, there was a feeling of fear (8.77% and 4.02% p>0.05). In some children, sleep came quickly, was prolonged, there was difficulty in waking up (7.0% and 12.0% p>0.05), lethargy, drowsiness in the morning (5.26% and 8.0% p>0.05), combined with passivity in morning classes. Some clinical symptoms in patients with PVH are given in the table.3.3.

As can be seen from the data in Tables 3.3, in sick girls, compared with population data [3], the most common clinical symptoms are lethargy and adynamicity (p<0.021), diffuse red dermographism (p<0.045), increased pulsation of the cervical vessels during examination (p<0.001), Tail symptom (p<0.018), increased tendon reflexes on the arms (p<0.007), and legs (p<0.001), decreased reflexes on the arms and legs (p<0.02), decreased abdominal reflexes (p<0.044), muffled tones at the base of the heart (p<0.026), at the apex (p<0.001), amplification of heart tones (p<0.001) and their uncoupling at the apex (p<0.018). In boys, compared with a healthy population of children, symptoms such as enlargement of the thyroid gland of I and II degrees (p<0.001), increased sweating, decreased limb temperature, acrocyanosis (p<0.001), white dermographism (p<0.042) red (p<0.021), increased pulsation of the cervical vessels were often observed (p<0.005), symptom of Tail (p<0.034), hypotension of the muscles of the arms and legs (p<0.016), increased tendon reflexes in the arms (p<0.035), their weakening in the legs (p<0.048), muffled heart tones at the apex (p<0.006), diffuse soreness in the area epigastrium, around the navel and along the bowel during objective examination (p<0.042).

Table 3.3.
Some clinical symptoms in the examined healthy and sick children with manifestations of PVA (%)

№	Clinical symptoms	Girls		Boys	
		Healthy n=50	Sick n=25	Healthy n=50	Sick n=57
1	Lethargy	8,0	24,0*	14,0	7,02
2	Mobility, anxiety	6,0	16,0	12,0	21,1
3	Enlargement of the thyroid gland I-II degree	12,0	24,0	4,0	19,3*
4	Increased sweating of extremities, acrocyanosis	14,0	20,0	6,0	26,3
5	Hyperemia of the face, palms, soles	8,0	12,0	6,0	8,77
6	Dermographism is red Dermographism is white	6,0 12,0	24,0* 16,0	6,0 8,0	17,5 19,3*
7	Increased pulsation of the cervical vessels (visually)	12,0	28,0*	12,0	24,6*
8	is a symptom of grade I and II tail	8,0	24,0*	10,0	26,3
9	Hypotension of the muscles of the arms and legs	10,0	20,0	12,0	28,1*
10	Tendon reflexes on the hands: Increased Lowered	 8,0 6,0	 24,0* 12,0	 2,0 12,0	 14,0* 16,5
11	Tendon reflexes on the legs:				

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ISSN: 2749-3644

	Increased Lowered	4,0 8,0	24,0 20,0	14,0 4,0	21,1 15,8
12	Abdominal reflexes are caused by They are called weakly	84,0 16,0	76,0 14,0	80,0 20,0	80,7 19,3
13	The boundaries of the heart are expanded (percussion)	6	16,0	10,0	12,3
14	Heart sounds are muffled: at the apex based	4,0 2,0	16,0* 12,0*	2,0 10,0	12,3* 19,3
15	Heart sounds are increased: at the apex of the aorta and V-point	6,0 6,0	16,0 12,0	10,0 8,0	17,5 12,3
16	Heart sounds are split: at the apex based	8,0 4,0	24,0* 12,0	12,0 6,0	15,8 8,77
17	Systolic murmur: at the apex at the base, V-point	12,0 6,0	20,0 8,0	14,0 8,0	17,5 10,6
18	Diffuse pain in the epigastrium, around the navel, along the large intestine	10,0	16,0	12,0	24,6*

Note: ** According to Fisher's exact method p<0,05-0,01.*

It was shown that these clinical symptoms depended on the initial autonomic tone; they often had a vagotonic orientation, more pronounced in girls (p <0.048) than in boys. It should be noted that many clinical symptoms identified from the cardiovascular system, such as expansion of the borders of the heart (percussion), muffled, intensified, splitting of its tones at different listening points, often accompanied by systolic murmur in the heart area, we regarded as a manifestation of functional cardiopathy [17, 91, 100] However, there is evidence in the literature that children with enlarged heart sizes are susceptible to sudden death [82] and children with a systolic murmur at the apex are more likely to have mitral valve dysfunction, which is the equivalent of mitral valve prolapse, and they more susceptible to cardiac rhythm and conduction disturbances [15, 20].

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Volume-33, April 2024
ISSN: 2749-3644

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