

## STUDY OF THE MECHANISM OF CHANGES IN THE HEART RATE OF PAROXYSMAL TACHYCARDIA

**Umarov Sherali**

**Burhonova Nigora**

**Aliyev Alisher**

**Maxamadiyev Ròzimurod**

Samarkand State Medical University, Department of Therapy, Cardiology and Functional  
Diagnostics, 1st year ordinators

**Abstract:** Paroxysmal tachycardia is one of the types of arrhythmia manifested by heart attacks with an increase in heart rate of 140-220 beats per minute or more. A fast heartbeat is caused by impulses that replace the normal sinus rhythm. Attacks usually begin and end suddenly, vary in duration, and maintain a regular rhythm (in most cases). Pathological impulses can appear in the atrioventricular node, atrium and ventricles.

**Key words:** Symptoms, Complications, Diagnosis, Treatment, Diet food, Prevention, Paroxysmal tachycardia

The appearance of foci of pathological impulses that stimulate the work of the heart muscle occurs for various reasons, which are divided into three large groups:

### 1. **Functional:**

chronic severe stress;

smoking, alcohol abuse;

contusion, wound;

poor nutrition;

abuse of drinks containing caffeine;

emotional stress;

neurological and mental pathologies (neuroses, neurasthenia, VSD, etc.).

## **2. Organic:**

cardiac muscle dystrophy;  
thrombosis, atherosclerosis of coronary vessels;  
arterial hypertension;  
IHD;  
heart attack;  
defects, pathological changes in valves;  
heart failure;  
rheumatism.

## **3. Beyond the Heart:**

pathologies of endocrine organs;  
diseases of the digestive system;  
pathologies of the urinary system.

The main cause of this form of tachycardia is myocardial infarction

During its development, replacement of the necrosis foci occurs due to paroxysms, which leads to serious changes in the structure of the heart and provides the necessary conditions for the appearance of a faulty pacemaker.

### **Paroxysmal tachycardia**

Such a rapid heart rate has a negative effect on the patient's health. If left untreated, the myocardium gradually wears out, blood circulation deteriorates, and cardiogenic shock, pulmonary edema, and heart failure may develop.

A repeated form can lead to the development of cardiomyopathy. In particularly severe cases, the patient may experience clinical death or death.

The disease often affects elderly people with a history of various pathologies of the heart and blood vessels.

The most unfavorable prognosis is for the ventricular form of pathology, which is the result of myocardial diseases. In patients with heart defects or a history of clinical death, another attack of rapid heartbeat can lead to death.

### **Diagnostics**

You can detect the heartbeat yourself at home. To do this, you just need to measure the heart rate. This is done as follows: you need to put two fingers on the radial artery in the area of the wrist, and after determining the pulse, you need to count its readings per minute. If at rest, without emotional outbursts and physical activity, the heart rate exceeds 100 beats, then we are talking about the development of a pathological form of tachycardia.

In this case, it is necessary to consult a doctor and undergo an examination, because it is impossible to independently determine the causes and type of pathology. During the appointment, the doctor will question and examine the patient and study the medical history. During the examination, tonometry and auscultation allow to identify signs of pathology, if an attack is observed during this period. Such a coincidence does not happen often, so the patient is prescribed additional instrumental diagnostic methods:

1. ECG. Study of the electrical activity of the heart muscle. The doctor looks at the results of the cardiogram, identifies signs of disturbances in the rhythm, sequence and speed of heart contractions.
2. ECHO-KG. Using this technique, an image of the projection of the myocardium is obtained, which makes it possible to assess its performance in real time.
3. Holter monitoring. The work of the heart during the day is recorded on a special portable device attached to the patient's body. At the same time, the patient keeps a diary, in which he records the time of discomfort in the heart area, so that the doctor can study this particular part of the ECG in more detail.
4. X-ray, CT, MRI. They allow to visualize the myocardium and determine the causes of its organic damage.
5. Stress test. An EKG is performed during physical activity. Using this technique, the supraventricular episodic form of the disease is determined. The results of the examination also depend on the age and physical fitness of the patient.

If necessary, blood tests, urine tests and other examinations, as well as consultations with specialists to determine the exact causes of heart rhythm disturbances, can be prescribed.

Do not self-medicate. When the first unpleasant symptoms appear, you should immediately contact a specialist and undergo an examination. If the diagnosis is confirmed, the patient may be prescribed the following types of treatment:

1. Conservative. Aimed at preventing heart attacks. The patient is prescribed antiarrhythmic drugs that restore normal heart rhythm.

The choice of drugs is made by the doctor individually for each person depending on the severity of the disease, the severity of symptoms, age, the presence of concomitant diseases and the current condition of the patient. If an attack occurs, electropulse therapy is used to stop it or antiarrhythmic drugs are administered intravenously.

2. Operation. Indications for surgical intervention:

frequent attacks of the disease and their poor tolerance by the patient;

life-threatening profession (pilot, etc.);

ineffectiveness of conservative treatment;

situations in which long-term use of drugs is undesirable (for example, the patient's youth).

The essence of the operation is to eliminate the source of false impulses using radiofrequency ablation.

### **Diet food**

To reduce the risk of recurrence of the disease, you need to eat properly, monitor your weight, cholesterol and blood sugar levels. Food should be fractional (5-6 times a day, in small portions).

This helps prevent overfilling of the stomach and reduces the possibility of irritation of the nerve receptors that control the heart and cause the heart to beat. You can not overeat at night. The last meal should be three hours before bedtime.

It is recommended to completely exclude caffeine, large amounts of starch, sugar, baked goods, sweet foods, fatty, smoked, spicy, salted, canned foods and fast foods from the diet.

### **Healthy food;**

If possible, avoid stress and nervous tension;

stop smoking and alcohol consumption;

do not drink strong coffee and tea;

compliance with the work and rest schedule;

do not overload physically;

timely treatment of joint diseases;

regular sanitization of foci of chronic infection in the body;

move more, walk, exercise;

undergo regular preventive examinations (especially for people at risk), which will help to notice pathological changes in time and take the necessary measures to eliminate them.

### **List of used literature:**

1. Treatment of paroxysmal tachycardia in the prehospital stage. Razuvaeva LA, Spanova AK, Esetova EM, Nurmukhambetova UJ, Adilgalieva OX West Kazakhstan Medical Journal. 2010 year. No. 2. With. 139-145
2. Diagnosis of paroxysmal reciprocal atrioventricular node tachycardia. Medvedev MM Bulletin of Arithmology. 2004 year. Number 33. With. 66-80
3. Modern principles of diagnosis and treatment of paroxysmal supraventricular tachycardias. Vetlujsky AV, Fomina IG KVTiP. 2005 year. No. 4. With. 70-78

4. Sarkisova, V., Lapasova, Z., & Shernazarov, F. (2023). O. Rakhmanov INFLAMMATORY DISEASES OF THE PELVIC WOMEN ORGANS.
5. Shernazarov I., Shernazarov F. Problems of translation of features related to the way of life of peoples //Science and innovation. – 2023. – Т. 2. – №. B1. – С. 80-83.
6. Jalalova, D., Axmedov, A., Kuryazov, A., & Shernazarov, F. (2022). COMBINED DENTAL AND EYE PATHOLOGY. Science and innovation, 1(8), 91-100.
7. Shernazarov F., Zuhridinovna J. D. Microcirculation disorders in the vascular system of the bulbar conjunctiva in the initial manifestations of cerebral blood supply deficiency //Science and innovation. – 2022. – Т. 1. – №. Special Issue 2. – С. 515-522.
8. Solovyova, Y., Prostyakova, N., Sharapova, D., & Shernazarov, F. (2023). The relevance of psychotic disorders in the acute period of a stroke. Science and innovation, 2(D12), 212-217.
9. Rotanov, A., Karshiyev, Z., Sharapova, D., & Shernazarov, F. (2023). Diagnosis of depressive and suicidal spectrum disorders in students of a secondary special education institution. Science and innovation, 2(D11), 309-315.
10. Shernazarov F. COMBINED DENTAL AND EYE PATHOLOGY //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 91-100.
11. Madaminov M., Shernazarov F. Breast cancer detection methods, symptoms, causes, treatment //Science and innovation. – 2022. – Т. 1. – №. D8. – С. 530-535.
12. Jalalova, D., Axmedov, A., Kuryazov, A., & Shernazarov, F. (2022). СОЧЕТАННАЯ СТОМАТОЛОГИЧЕСКАЯ И ГЛАЗНАЯ ПАТОЛОГИЯ. Science and innovation, 1(D8), 91-100.
13. Prostyakova, N., Solovyova, Y., Sharapova, D., & Shernazarov, F. (2023). Issues of professional ethics in the treatment and management of patients with late dementia. Science and innovation, 2(D12), 158-165.
14. Jalalova D., Raxmonov X., Shernazarov F. РОЛЬ С–РЕАКТИВНОГО БЕЛКА В ПАТОГЕНЕЗЕ СОСУДИСТЫХ ЗАБОЛЕВАНИЙ ОРГАНА ЗРЕНИЯ У БОЛЬНЫХ АРТЕРИАЛЬНОЙ ГИПЕРТЕНЗИЕЙ //Science and innovation. – 2022. – Т. 1. – №. D8. – С. 114-121.
15. Pogosov S. et al. Psychogenetic properties of drug patients as risk factors for the formation of addiction //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 186-191.
16. Sedenkova M. et al. The possibility of predicting the time of formation and development of alcohol dependence: the role of genetic risk, family weight and its level //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 173-178.
17. Shamilov V. et al. Disorders of decision-making in the case of depression: clinical evaluation and correlation with eeg indicators //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 198-204.
18. Малявская С. И., Лебедев А. В. Метаболический портрет детей с ожирением //Российский вестник перинатологии и педиатрии. – 2015. – Т. 60. – №. 6. – С. 73-81.
19. Ишкабулова Г. Д. и др. Влияние димефосфона на основные функции почек новорожденных, рожденных от матерей с хроническим пиелонефритом с сочетанным ОПГ-гестозом //Вестник науки и образования. – 2018. – №. 14-2 (50). – С. 51-55.
20. Гарифулина Л. М., Ашурова М. Ж., Гойибова Н. С. Состояние здоровья детей с различными типами ожирения //Молодежь и медицинская наука в XXI веке. – 2018. – С. 35-37.

21. Гойибова Н. С. и др. Функция почек у недоношенных новорожденных, родившихся от матерей с преэклампсией //Достижения науки и образования. – 2019. – №. 10 (51). – С. 59-63.
22. Гойибова Н. С., Гарифулина Л. М. Функции почек у детей с ожирением //Вопросы науки и образования. – 2020. – №. 26 (110). – С. 51-57.
23. Uskov A. et al. Modern methods of therapeutic fasting as a way to overcome the pharmacoresistance of mental pathology //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 179-185.
24. Prostyakova N. et al. Strategy for early diagnosis with cardiovascular diseaseisomatized mental disorders //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 166-172.
25. Tahirova, J., Roziklov, N., Mamatkulova, F., & Shernazarov, F. (2022). Insomnia problem causes of sleep disorder, help measures at home. Science and innovation, 1(D8), 521-525.
26. Qizi T. J. I., Farrukh S. Treatment of myocardial infarction and first aid //Science and innovation. – 2022. – Т. 1. – №. D3. – С. 317-320.
27. Rotanov A. et al. Elderly epilepsy: neurophysiological aspects of non-psychotic mental disorders //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 192-197.
28. Abdurakhmanov I., Shernazarov F. SPECIFIC ASPECTS OF TREATMENT OF CHRONIC RHINOSINUSITIS IN CHILDREN //Science and innovation. – 2023. – Т. 2. – №. D10. – С. 164-168.
29. Tahirova J. et al. Neurose causes and mechanisms of development, symptoms, treatment, prevention //Science and innovation. – 2022. – Т. 1. – №. D8. – С. 515-520.
30. Tahirova J., Shernazarov F. Symptoms of hymoritis, treatment, methods of folk medicine, prevention //Science and innovation. – 2022. – Т. 1. – №. D8. – С. 983-990.
31. Shodiyeva D., Shernazarov F. Analysis of the compounds providing antihelmitic effects of chichorium intybus through fractionation. Science and innovation, 2 (D2), 64-70. – 2023.
32. Jalalova D., Normatova N., Shernazarov F. Genetic markers for the development of diabetic retinopathy //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 919-923.
33. Abdukodirova S., Shernazarov F. SPECIFIC CHARACTERISTICS AND TREATMENT OF ACUTE OBSTRUCTIVE BRONCHITIS IN CHILDREN OF EARLY AGE //Science and innovation. – 2023. – Т. 2. – №. D11. – С. 5-8.