

**Background.** According to the recent data in up to 10% of the patients with ventricular tachycardia (VT) there is an absence of structural heart disease. Several types of VT could be present in such patients: right ventricular outflow tract (RVO T) VT, caticholaminergic polymorphic VT, idiopathic left VT, Brugada syndrome, long QT syndrome. According to the VT type the management can be pharmacological therapy, radio-frequency ablation, implantation of cardioverter defibrillator or a combination of them. The decision about the management is based on the type of VT, data obtained from echocardiography, magnetic resonance imaging (MRI) and electrophysiological study (EPS).

**Case report.** We present a case of a 48 years old female who had frequent attacks of palpitations with presyncope. On Holter ECG monitoring there were 32066 premature ventricular complexes (PVCs) and 493 non-sustained episodes of VT during 24 hours with left bundle branch block morphology, inferior axis and transition zone in V4. The patient could not receive amiodarone because of an allergic reaction. Treatment with beta-blockers, verapamil and propafenone was tried but with no sufficient improvement. On echocardiography and MRI she had no structural heart disease. We suspected RVOT VT and evaluated the patient during EPS, where RVOT VT was induced. The earliest activation point was found to be in postero-septal RVOT area and several applications of radio-frequency energy were performed. Immediately after ablation there were no more PVCs, with solitary PVCs in next days. She continued the medical treatment with bisoprolol 5mg/day and propafenone 300 mg/day. We evaluated the patient after one month on Holter ECG. There was a decrease of PVCs number to 4123, but were 137 non-sustained paroxysms of VT during 24 hours. We decided to repeat the ablation. On basal ECG during second EPS there were no PVCs, but they appeared after dobutamine infusion. Radio-frequency energy was applied in postero-septal RVOT area with disappearance of PVCs. The patient continued the treatment with metoprolol 100mg/day. On Holter ECG monitoring after one month there were 5195 PVCs during 48 hours and no more paroxysms of VT. We recommended to continue the treatment with metoprolol 100mg/day only.

**Conclusions.** Electrophysiological study is an important tool in evaluating ventricular tachycardia and radio-frequency ablation is a therapy of choice is selected patients.

**Key words:** ventricular tachycardia, structural disease.

## 6. A CASE OF CHAGAS CARDIOMYOPATHY IN REPUBLIC OF MOLDOVA

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**Background.** Chagas disease (CD) (American trypanosomiasis) is generated by the protozoan parasite *Trypanosoma cruzi* (T.cruzi) and transmitted by the reduviid bug in Latin America. Approximately 8-12 million people are infected with T.cruzi in Central and South America. Estimates of the number of annual deaths are around 50,000, 60% being related to sudden cardiac death. Overall, 4.2% of Latin American individuals living in European countries are chronically infected with T.cruzi.

**Case report.** We present the case of a young man of 29 years old, professional football player originating from Brazil. The patient was admitted for establishing the cause of the patient syncope developed during physical activity. The past medical history was without particularities. We evaluated the patient by basic ECG, echocardiography, and effort test – all without abnormalities. Holter ECG monitoring revealed multiple episodes of unstained ventricular tachycardia and several episodes of complete atrioventricular block – maximal pause 3.5 sec. We have also found frequent polymorphic ventricular extrasystole, disappearing during physical

effort. Biochemical panel was without abnormalities. Heart MRI showed multiple regions of myocardial infiltration, and cardiosclerosis. The heart MRI image was typical for Chagas cardiomyopathy, considering the patient origin. Because of the absence of experience with CD in Republic of Moldova, we have sent the patient for serological evaluation in European cardiac centers. Given the concomitant episodes of complete atrioventricular block, we couldn't prescribe any antiarrhythmic drug for the ventricular tachycardia. The patient was recommended to avoid any physical activity. For arrhythmia control we indicated implantation of device with pacemaker and ICD functions. Serological diagnosis of CD was thereafter confirmed. Patient got recommendation to return in Brazil to the national center for Chagas disease, because of their huge experience. In Brazil, during physical effort – playing football, patient suffered syncope and died, probably because of malignant ventricular arrhythmia.

**Conclusions.** Heart diseases caused by different germs, atypical for Republic of Moldova or this part of the Europe, should be taken in consideration in all causes of unexplained heart functional or morphological abnormalities, especially in patients who are coming from other geographical regions or travelling abroad.

**Key words:** Chagas disease, cardiomyopathy

## 7. PARTICULARITIES OF ACUTE MYOCARDIAL INFARCTION APPROACH IN A PATIENT WITH CORONARY ARTERIES ANOMALY

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**Background.** Acute myocardial infarction among the young population is rare and presents diagnostic and approach difficulties that lead to treatment delay in emergency cases and worse outcome for patients. This case focuses on a young man who developed an inferior myocardial infarction as a result of embolization of the left coronary artery system associated with the right coronary anomaly.

**Case report.** A 25 year old man presented in the emergency room with a 4 hours history of severe retrosternal crushing pain, radiating down his left arm and associated with sweating, nausea, and breathlessness. He had never previously experienced chest pain at rest or on exertion. He was a smoker. The last 2 weeks have been really stressful so the patient smoked more than usual. He didn't have a family history of ischaemic heart disease or sudden cardiac death. At first examination he was pale and sweaty with a tachycardia of 110 beats/min. His blood pressure was 140/100 mm Hg. Transthoracic echocardiography revealed hypokinesia of the inferior wall. A coronary angiogram showed the absence of right coronary ostium (ostial trombosis?) and filling of the right coronary artery through collateral vessels from the left coronary system; LAD and OM I distal thrombosis. No right coronary ostium was observed in the aortogram. None of the coronary arteries showed any sign of atherosclerosis. We performed thrombolysis (Actilyse) with clinical and ECG improvement. After 72 hours angiography - LAD and OM I successful total trombolysis, couldn't find RCA origin - suspicion of anomalous origin of the right coronary artery. The patient was discharged on the 5th day of hospitalization in good condition. Recommended: hereditary screening thrombophilia panel and Coronary CT Angiography (CTA). CTA showed - Anomalous Right Coronary Artery From the Left Coronary Sinus With an Interarterial Course, as well as right coronary artery ostial and proximal hypoplasia, and a fistule LAD pulmonary artery RCA.

**Conclusions.**