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.

- 1. Congenital ostial coronary artery atresia/hypoplasia should be a part of the differential diagnosis particularly in young patients presenting with a totally occluded coronary artery and no cardiovascular risk factors.
- 2. Thrombolysis can be a good choice for treatment of STEMI if primary PCI has failed.
- 3. Patients with suspicion of anomalous coronary arteries should perform CT angiography (CTA) to confirm originated sites, anatomic route and whether complicated with other congenital malformation.

**Key words:** myocardial infarction, coronary anomaly

## 8. SWITCHING THE LITTLE KIDS LIVES ON

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**Background.** Cormatrix is an innovation in bioengineering, introduced in the medical world in 2013. The material is based on the extracellular matrix derived from the porcine intestine submucosa, allowing for tissue restructure and growth in the "site" where it is used. The composition consists of collagen, glycosaminoglycans, glycoproteins, proteoglycans and growth factors VEGF, FGF. The superior characteristics are given by acellularity, resistance to infection, anti-inflammatory effect and immunomodulator, the most important element being the reactivity depending on the impulse from the tissue where it is involved.

Case report. At the Institute of Cardiovascular and Transplant Diseases in Targu Mures, Cormatrix has been in used since 2013 and has been useful as a biocompatible tissue in arterial switch procedures of transposition of great vessels. A 12 days old patient diagnosed with transposition of great vessels was received by Institute of Cardiovasculare and Transplant Diseases from Targu Mures for a arterial switch surgery. The surgery implies total cardiopulmonary by-pass and at 26 Celsius degrees in the operating theater the great vessels are cut from their emerging. The coronary arteries are excised from the future pulmonary artery and reimplanted in neo-aortic wall; the resulting parietal defect after the coronary arteries excision is repaired with a Cormatrix patch plasty. Literature showed that in 30% of cases where pericardial patch was used it led to a pulmonary supravalvular stenosis. The post-surgery echographics at 3 months, 6 months and 1 years where Cormatrix was used showed no change in circulatory flow in the pulmonary cormatrix patch segment.

**Conclusions.** In conclusion Cormatrix patch seems to have better results in reconstruction of the pulmonary artery wall defects in transposition of great vessels surgery because it has a high level of biocompatibility and a better reintegration in the vessel tissues .

**Key words:** cormatrix, bioengineering

## 9. SLEEP APNEA SYNDROME AS A CAUSE OF SEVERE PULMONARY HYPERTENSION

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**Background.** Sleep apnea is a disorder characterized by pauses in breathing or periods of shallow breathing during sleep. There are three forms of sleep apnea: obstructive (OSA), central