

Material and methods. 300 formalized human hearts were studied by fine anatomical dissection method at macroscopic, macro-microscopic (stained with Schiff reagent) and microscopic (stained with hematoxylin-eosin and picrofuxin by van Gieson method) levels.

Results. CMB were found in 62.5% cases. Most frequently CMB cover the anterior interventricular branch, followed by the diagonal branches of both ventricles, first marginal branch and posterior interventricular branch. The width of about 1/3 of complete myocardial bridges (34%) was about 10-19 mm, in 25% of cases its width was 20-29 mm, in 18% of dissected hearts the width of CMB was 1-9 mm and only in 4% of cases wide bridges, up to 70 mm, were found on anterior interventricular branch. Macro-microscopic and microscopic study revealed deformation and narrowing of the vessel under the bridge what could have an important role in heart ischemic sufferings and sudden death. Microscopic investigation of the under-bridge segment indicates that the direction of the myocardial fibers varies. While in thin myocardial bridges the direction of the myocardial fibers is similar to the first myocardial layer, in thick bridges, especially those located above the anterior interventricular branch, myocardial fibers surround the vessel and have the helicoidally orientation, forming a myocardial tunnel around the vessel.

Conclusions. The degree of systolic compression of the coronary vessel by myocardial bridge depends on many factors: the topography of the bridge, its thickness, width and muscle-conjunctive composition, muscle's fibers orientation, the diameter of the involved vessel and its deepness, the association of some myocardial bridges on the same vessel, presence of atherosclerosis. Systolic compression of coronary vessels by myocardial bridges may cause sudden death in young, healthy persons.

Key words: complete myocardial bridges, myocardial infarction, sudden death

229. CARDIAC MANIFESTATIONS IN TYPE 2 MYOCARDIAL INFARCTION

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Introduction. Type 2 myocardial infarction (T2MI) happens secondary to ischemia due to an imbalance between myocardial oxygen supply and demand. Causes are usually different from a plaque rupture (for example: anemia, coronary spasm, tachycardia, hypertension, hypotension). This categorization is used since 2012, but, limited data is available regarding patients profiles.

Aim of the study. To analyze the literature and to describe the clinical characteristics of the patients.

Materials and methods. We conducted an electronic search in ScienceDirect and PubMed using the words "type 2" or "type II", "myocardial infarction" and "characteristics" and "manifestations", date limited from 2008 when first definition was introduced.

Results. The main findings of this study confirm the difficulty in the differential diagnosis between patients with T2MI and T1MI, still, the symptoms of T2MI differs from those of T1MI. Atypical chest pain is the most frequent manifestation of T2MI. Among the most often clinical findings were symptoms like dyspnea, syncope, arrhythmias. When comparing the groups, patients with T2MI had higher cardiac rhythm. Furthermore, rales, leg edema and cardiomegaly on radiography were more common. Moreover, it was related that T2MI can be related more with pulmonary congestions. They also tend to be older, majority female.

Conclusions. Type 2 MI is more comune in older, females and in patients with multiple comorbidities. The most frequent manifestations is atypical chest pain.

Key words: myocardial infarction, type II, characteristics