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Role of Ultrasound Examination in Diagnostic and Cure of Patients with SyncopeClinic for Cardiovascular Surgery, Mandryka Military Hospital, Moscow, Russian Federation

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Syncope of cardiac nature is dangerous and have adversity prognosis. They are the reason of 35% of all syncope, and morbidity rate is 18-35%.

Background and Goal of study:

Explore the application of ultrasound methods for diagnostic of cardiac causes of syncope and their role in controlling of treatment efficacy.

Materials and Methods:

In time period between January 2007 and September 2012 135 of all reviewed patients were diagnosed with syncope. In 94 cases (69,6%) reasons were cardiogenic. Two groups were formed. First group included 31 (22,9%) patients with structural heart lesion, the second one comprised of 63(46%)%) patients with rhythm disturbances. All patients were examined using transthoracic echocardiography (TTE), and 57 also with transesophageal echocardiography (TEE). Examination was performed using Vivid -3 and Vivid-7(GE, USA) scanners.

Results and Discussion:

Cardiac causes of syncope (heart valve pathology) were discovered in 9 patients of the first group: 4 patients with aortic stenosis, 3 with combined mitral-aortic valve diseases, 8 had hypertrophic cardiomyopathy, 4 - infectious endocarditis, 1 – left -side atrial myxoma. Other syncope's causes in patients from the first group were: 3 cases of lung artery emboli, 5 - of ischemic disease with low contractility, 2 of lung hypertension. TTE and TEE had a decisive role in the diagnostic of these pathologies. Main causes of syncope in the second group were atrial fibrillation (33%) and ventricular tachycardia (4%). These findings correlate with their occurrence rates in the general population. The ultrasound examination discovered cases of left atrial dilatation and stunning of left atrial after rhythm recovery. TEE were performed for thrombosis detection before treatment rhythm disturbances.

Conclusion(s):

Ultrasound examination plays an extremely important role in the early diagnostic causes of cardiac syncope. TTE and TEE findings help to choose surgery and conservative tactics for treatment and efficacy control.