

CARDIORENAL SYNDROME: DEFINITION, PREVALENCE, DIAGNOSIS, AND PATHOPHYSIOLOGY

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**Relevance of the problem.** Cardiorenal syndrome (CRS) is characterized by the coexistence of acute or chronic dysfunction of the heart and kidneys, leading to a cascade of feedback mechanisms that cause damage to both organs. Clinical and epidemiological studies have revealed a close relationship between the kidneys and the heart with various bidirectional and dynamic mechanisms, including hemodynamic interactions in heart failure (HF). Damage/dysfunction of the cardiovascular system can lead to kidney damage and dysfunction due to various mechanisms; in turn, kidney dysfunction can worsen the functioning of the cardiovascular system, affecting both the circulatory system and the heart. Thus, patients suffering from cardiovascular diseases (CVD) often also suffer from chronic kidney disease (CKD), and vice versa.

**Material and methods.** The study included 71 patients with stage I–II CHF and stage I–III FC aged 44 to 79 years. The combination of arterial hypertension and ischemic heart disease served as a substrate for the development of CE. Exclusion criteria from the study were: low LVEF (<45%); myocardial infarction or unstable angina in the last 3 months before inclusion in the study; presence of hemodynamically significant valvular defects; FC III–IV CHF; severe liver failure, confirmed history of kidney disease.

Read at the end of the study. In the development of any type of CRS, there are two important aspects: the first is the sequence of organ damage, and the second is the bidirectional impact, which leads to a vicious circle. These disorders are limited in time (chronic or acute). The development of cattle is associated with the action of pathological factors that negatively affect the function of the myocardium and kidneys. Genetic, metabolic, hemodynamic, neurohumoral factors, and disorders of mineral and lipid metabolism are involved in the development of this syndrome.

**Conclusions:** Early diagnosis of cattle allows you to start the necessary treatment in a timely manner, prevent the development of complications and reduce mortality, and sometimes prevent the development of severe cardiorenal pathology. Currently, numerous biochemical markers are known, which are characterized as accurate, highly reliable and specific indicators of heart and kidney damage, which can be used for the diagnosis of cardiovascular diseases.