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Cardiogenic shock: early recognition and emergency nursing interventions

Silvija Mikla*, **Ivana Jukić**

University Hospital Centre Osijek, Osijek, Croatia

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***ADDRESS FOR CORRESPONDENCE:** Silvija Mikla, Klinički bolnički centar Osijek, J. Huttlera 4, HR-31000 Osijek, Croatia. / Phone: +385-98-986-4354 / E-mail: sickystar@gmail.com

ORCID: Silvija Mikla, https://orcid.org/0009-0006-7886-1304 • Ivana Jukić, https://orcid.org/0009-0009-3676-230X

Introduction: Cardiogenic shock is one of the most severe and life-threatening conditions in cardiology, characterized by inadequate cardiac function and the resulting inadequate tissue perfusion.[1] The most common cause of cardiogenic shock is acute myocardial infarction, but it can also develop in the context of acute or chronic heart failure, severe arrhythmias, acute valvular disease, mechanical complications of infarction, and other conditions. Cardiogenic shock is a dynamic process in which a patient's condition can change rapidly. For this reason, early recognition of signs of hypoperfusion plays a key role in timely treatment. The nurse in the cardiac intensive care unit continuously monitors vital functions, cardiac rhythm, arterial pressure, urine output, peripheral perfusion, level of consciousness, laboratory indicators and response to the administered therapy. It is particularly important to understand that the absence of pronounced hypotension does not exclude cardiogenic shock, because hypoperfusion can develop even with relatively preserved arterial pressure values.

Case report: A middle-aged male patient was admitted to the Cardiac Intensive Care Unit following acute myocardial infarction and percutaneous coronary intervention. He was initially hemodynamically stable. Over the following hours, the nurse observed gradual clinical deterioration. The patient became restless and diaphoretic, with increasingly cold extremities, a rising heart rate, progressively decreasing blood pressure, and reduced urine output. Reassessment revealed worsening peripheral perfusion and an altered level of consciousness. Laboratory findings showed increasing lactate levels and evidence of metabolic disturbance. The nurse immediately notified the physician, ensured continuous monitoring, assessed vascular access sites, prepared the necessary medications and equipment for further hemodynamic support, and continued frequent reassessment of tissue perfusion and response to treatment. As hemodynamic instability progressed, the multidisciplinary team was activated, and escalation of treatment, including possible mechanical circulatory support, was considered.

Conclusion: Cardiogenic shock is a life-threatening cardiovascular emergency in which clinical deterioration may occur rapidly. Early warning signs of tissue hypoperfusion may precede significant hypotension. Cardiac intensive care nurses play a key role in recognizing these changes through continuous assessment of peripheral perfusion, urine output, mental status, cardiac rhythm, and lactate levels. Timely recognition and escalation of care are essential for the management of patients at risk of cardiogenic shock.

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LITERATURE

1. Sinha SS, Morrow DA, Kapur NK, Kataria R, Roswell RO. 2025 Concise Clinical Guidance: An ACC Expert Consensus Statement on the Evaluation and Management of Cardiogenic Shock: A Report of the American College of Cardiology Solution Set Oversight Committee. J Am Coll Cardiol. 2025 Apr 29;85(16):1618-1641. https://doi.org/10.1016/j.jacc.2025.02.018