Emergency heart transplantation in a patient with a ventricular septal defect: critical considerations and case report

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Introduction: A ventricular septal defect (VSD) is one of the most severe mechanical complications of myocardial infarction, which can lead to acute heart failure and cardiogenic shock, resulting in a high mortality rate. According to a recent study, due to the development of successful reperfusion therapy, the incidence of VSD has decreased from 1%-2% to 0.17%-0.13%, but the risk of fatal outcome remains high (up to 80%).[1] The management of patients with VSD following myocardial infarction, according to current guidelines, depends on the severity of the clinical presentation and patient stability, with several treatment strategies exist: medical therapy with inotropes, vasopressors, mechanical circulatory support (MCS), surgical septal repair, and percutaneous intervention may also be considered.

Case report: This paper presents a 60-year-old man hospitalized in the Department of Intensive Cardiac Care at the Dubrava University Hospital with a clinical presentation of cardiogenic shock caused by a subacute inferior wall myocardial infarction. Echocardiography confirmed a rupture of the interventricular septum, and due to an inadequate response to vasopressor and inotropic drugs, veno-arterial extracorporeal membrane oxygenation was established via femoral approach. Given the patients conditional stability with MCS, other treatment options were considered, and urgent heart transplantation was indicated. The patient was processes and placed on an urgent international and national transplant list. On the thirteenth day of being listed, the patient was prepared and transferred for an emergency heart transplant.

Conclusion: Nursing preparation of patients prior to emergency heart transplantation involves frequent assessment and monitoring of the patients condition, hemodynamic monitoring, infection control and prevention, management of bleeding, and other potential complications, as well as providing psychological support to the patient and their family. Essential skills and competencies include understanding the transplantation process, preparation and coordination of necessary procedures and tests, as well as critical nursing monitoring of the patient for emergency heart transplantation.

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LITERATURE

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