

A complex high-risk procedure in a patient with known multi-vessel coronary artery disease using Impella as hemodynamic support: a case report

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The purpose of this case report is to highlight the importance of hemodynamic support for the high-risk percutaneous coronary intervention (PCI) procedure in order to maintain vital parameters and optimum conditions for complex PCI. The 70-year-old patient with a history of high blood pressure and smoking was hospitalized due to myocardial infarction without ST segment elevation. The echocardiography shows the reduced ejection fraction of the left ventricle (LV), ejection fraction (EF) LV 20–25%. Coronary angiography has revealed multivessel disease with significant stenosis of the left main and proximal LAD, two significant stenoses of the LAD in the distal segment, two significant stenoses of OMI, and chronic total occlusion of one significant branch of the RCA with retrograde collateral flow. Surgical myocardial revascularization was scheduled, and preoperative examinations were performed. Next, the patient developed clinical worsening with angina pectoris, and continued cardiac decompensation and coronary percutaneous intervention with hemodynamic support with the Impella CP device were done¹. A coronary intervention of the left main was performed, and the Impella device was removed immediately following the procedure. The patient was discharged cardiopulmonary compensated, hemodynamically stable, without chest pain, and with optimal vital parameters.

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LITERATURE |||||

1. Simonton S, Thompson C, Wollmuth JR, Kynn Morris D, Dahle TG. The Role of Hemodynamic Support in High-risk Percutaneous Coronary Intervention. US Cardiology Review. 2020;14:e13. <https://doi.org/10.15420/usc.2020.18>