Left ventricular intramyocardial dissecting hematoma – a diagnostic dilemma

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Introduction: Intramyocardial dissection hematoma (LV-IDH) is a rare complication of myocardial infarction. It is usually caused by hemorrhagic dissection among the spiral myocardial fibers. LV-IDH consists of a cavity filled with blood, the outer wall of which is the myocardium and pericardium, and the inner wall, facing the ventricular cavity, is part of the myocardium and endocardium. To date there is no establish protocols and clear quidelines for management in such cases.

Case report: We hereby report the case of a 80-year-old male patient with left ventricular intramural dissecting hematoma (LV-IDH) who presented with a severe breathlessness with heart failure (NYHA IV) complicated with cardiorenal syndrome (Type 1). Transthoracic echocardiography (TTE) was performed showing LV-IDH, confirmed with cardiac magnetic resonance imaging (cMRT). Selective coronary arteriography was performed showing significant obstructive coronary artery disease (CAD). Patient management first included conservative approach followed with complex PCI.

Conclusion: LV-IDH is an extremely rare and diagnostically challenging condition that occurs most often as a complication of CAD. The diagnostic algorithm includes multimodal imaging in the entire spectrum of cardiac imaging (primarily TTE and cMRT). The main differential diagnosis includes intracavitary thrombosis. The distinction from intracavitary thrombus relies on the clear identification of the endocardial layer surrounding the neoformation and its systolic expansion. Therapy is complex and individualized and should follow through the Heart Team Protocol.

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