

たこつぼ心筋症に心室中隔穿孔を合併した一例

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抄 録

症例は80代男性。前日に妻が亡くなり、その後胸痛が出現した。症状が次第に増悪し、改善がみられないため当院へ緊急搬送された。来院時の12誘導心電図検査では四肢誘導Ⅱ、Ⅲ、aVFで陰性T波、胸部誘導V2のST上昇およびV3-6で巨大陰性T波を認めた。血液生化学検査では、トロポニンIとCK/CK-MBの上昇を認め、急性冠症候群またはたこつぼ心筋症が疑われた。緊急冠動脈造影では、有意狭窄はなく、急性冠症候群は否定的であった。左心室造影では、左室心尖部の収縮低下および左室基部の過収縮、左室から右室へ流入する短絡血流を認めた。以上の所見から、たこつぼ心筋症に合併した心室中隔穿孔と診断された。集中治療室にて行った経胸壁心エコー図検査では、左室心尖部に壁運動軽度低下を認め、基部は過収縮であった。心尖部心室中隔に最大径10mmの穿孔があり、カラードブラ法にて左室から右室へ流入する短絡血流を認めた。経過中血圧が担保できず、鎮静による気管内挿管を行ったうえで補助循環装置や静脈-動脈体外膜型人工肺、外科的介入も検討された。年齢、全身状態、侵襲的治療に伴うリスクを患者家族に説明し、治療方針について協議した結果、侵襲的治療は行わずに緩和ケア主体の治療を行う方針となった。循環不全が進行し、入院5日目に逝去した。

A case of takotsubo cardiomyopathy complicated by ventricular septal perforation

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Abstract

Takotsubo cardiomyopathy (TCM) is characterized by transient left ventricular systolic dysfunction typically triggered by emotional or physical stress. While the prognosis is generally favorable, severe mechanical complications such as ventricular septal perforation (VSP) can occur, albeit rarely. We report a fatal case of TCM complicated by VSP in a man in his 80s. The patient developed acute chest pain several hours after the sudden death of his wife. On admission, he presented with cardiogenic shock. Electrocardiogram showed T-wave inversion in leads II, III, and aVF; ST-segment elevation in V2; and giant inverted T waves in V3-6. Laboratory tests revealed elevated troponin I and CK/CK-MB levels. Emergency coronary angiography demonstrated no significant stenosis, but left ventriculography revealed apical akinesis with basal hypercontraction and a left-to-right shunt. Transthoracic echocardiography confirmed a 10-mm apical ventricular septal perforation with a pulmonary-to-systemic blood flow ratio (Qp/Qs) of 2.9. Intra-aortic balloon pumping was deferred due to severe psychomotor agitation and difficulty maintaining the required immobilization. Hemodynamic support was attempted with fluid resuscitation and norepinephrine; however, this may have inadvertently exacerbated the intraventricular pressure gradient and mechanical stress on the fragile septum. During the clinical course, persistent hypotension necessitated sedation and endotracheal intubation. Although mechanical circulatory support devices, veno-arterial extracorporeal membrane oxygenation, and surgical intervention were considered, after explaining to the patients family the risks associated with his age, overall condition, and invasive treatments in favor of comfort-focused care. His circulatory failure progressively worsened, and he died on hospital day 5. This case highlights that VSP is a critical, though rare, complication of TCM. Early detection via color Doppler echocardiography and careful consideration of circulatory support devices are essential in managing such high-risk cases.

Keywords

takotsubo cardiomyopathy, ventricular septal perforation, cardiogenic shock, echocardiography, transthoracic echocardiography

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