Surgical management of left ventricular free wall rupture after acute myocardial infarction.

Authors: Coletti G., Torracca L., Zogno M., La Canna G., Lorusso R., Pardini A., Alfieri O.

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Abstract:

Left ventricular rupture after acute myocardial infarction occurs more often than suspected and diagnosis is rarely made before death. Left ventricular rupture has been reported to contribute to the overall in-hospital mortality after acute myocardial infarction in up to 24% of cases and to be present in 40% of patients dying within the first week after infarction. Only prompt diagnosis and aggressive surgical treatment can be lifesaving under these circumstances. Between February 1991 and August 1993 five patients underwent emergency operation for left ventricular rupture after acute myocardial infarction using exclusively transoesophageal echocardiography as a diagnostic tool. All patients had evidence of cardiac tamponade and electrocardiography showed signs of anterolateral acute myocardial infarction in one, inferolateral acute myocardial infarction in three and lateral acute myocardial infarction in one. In two cases the infarcted area was debrided and an interrupted pledgetted 2/0 polypropylene suture was placed from inside of the ventricle outward to the epicardial surface and then through the pericardial patch. In the other three cases an original technique was used: an autologous glutaraldehyde-stiffened pericardial patch was sealed over the infarcted area using fibrin glue and fixed with running suture on the surrounding healthy myocardium. One patient died in the operating room because of low cardiac output syndrome which was possibly the result of an excessively extended area of infarction. Left ventricular rupture is a catastrophic complication of acute myocardial infarction and prompt diagnosis with transoesophageal echocardiography followed by emergency operation can be lifesaving. The surgical technique with pericardial patch and fibrin glue, without infarct excision, used in three patients, can be a useful and simple surgical option in

this pathology when no active bleeding is observed from the tear.