INTRODUCTION

• Ventricular septal rupture is a rare but deadly complication of acute myocardial infarction (AMI)
• We describe a case that was recognized at time of occurrence in the cardiac catheterization lab

CASE PRESENTATION

75 year old female with hypertension (HTN):
• Three days substernal chest pain, to left arm, associated dyspnea, nausea, vomiting, unrelieved by simethicone or position change
• BP 165/92, HR 104, normal cardiovascular and pulmonary exam, without jugular venous distension, rales, murmurs or galls
• Electrocardiogram (ECG) depicted below
• Echocardiogram: inferior & inferoseptal akinesis, ejection fraction 30%

HOSPITAL COURSE

• Aspirin 325mg, heparin & eptifibatide infusions
• Taken urgently to cardiac catheterization
• BP to 182/107 → low dose nitroglycerin infusion
• Acutely developed profound hypotension
• Nitroglycerin discontinued
• Intra-aortic balloon pump placed

DISCUSSION

• Ventricular septal rupture complicating AMI has a bimodal peak: 24 hr & 3-5 d; incidence of 0.25%
• Risk factors: age >60 years, female sex, no previous MI, HTN, late presentation, LAD disease
• Diagnosis: Classically by pulmonary artery catheterization with step-up in oxygen saturation from right atrium to ventricle, often with prominent V waves on wedge pressure. Echocardiography with color Doppler is now considered diagnostic
• Uniformly fatal when presenting as cardiogenic shock. Urgent surgical repair is indicated, with best results occurring simultaneously with CABG
• If more stable, and/or surgery contraindicated, percutaneous closure techniques are considered
• Early recognition is key and ventricular septal rupture should be in the differential diagnosis of acute hypotension and shock following AMI

REFERENCES