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Severe ventricular septal defect as a complication of myocardial infarction

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Image in medicine

We report the case of a 59 year-old male with medical history of hypertension and diabetes mellitus, who was referred to the emergency department for chest pain that occured 24 hours before, associated with shortness of breath. On admission, blood pressure was 110/60 mmHg, heart rate was 110 beats/minute, saturation was 96% while breathing ambient air, and cardiac auscultation revealed a left sternal systolic murmur. Electrocardiogram (ECG) showed a 6 mm Convex ST-segment elevation with pathological Q-waves in anterior leads. Transthoracic echocardiography (TTE) showed a 15mm apical Ventricular Septal Defect (VSD) (A,B) with left-to-right shunt, associated with regional wall motion abnormalities : large apical akinesia and severe antero-lateral hypokinesia with a calculated left ventricular ejection fraction of 35%, in addition to

an estimated pulmonary artery systolic pressure (PASP)of 60 mmHg. The patient immediately underwent coronary angiography that revealed a total occlusion of the left anterior descending (LAD) artery, where a drug-eluting stent was successfuly placed. After the patient´s stabilization, the case was discussed by the heart team after which, the patient underwent a surgical VSD repair on day 10 of onset, with good operative result. The post-operative follow-up was uneventful and no residual vegetation in the control TTE. The patient was discharged from the hospital in stable condition.

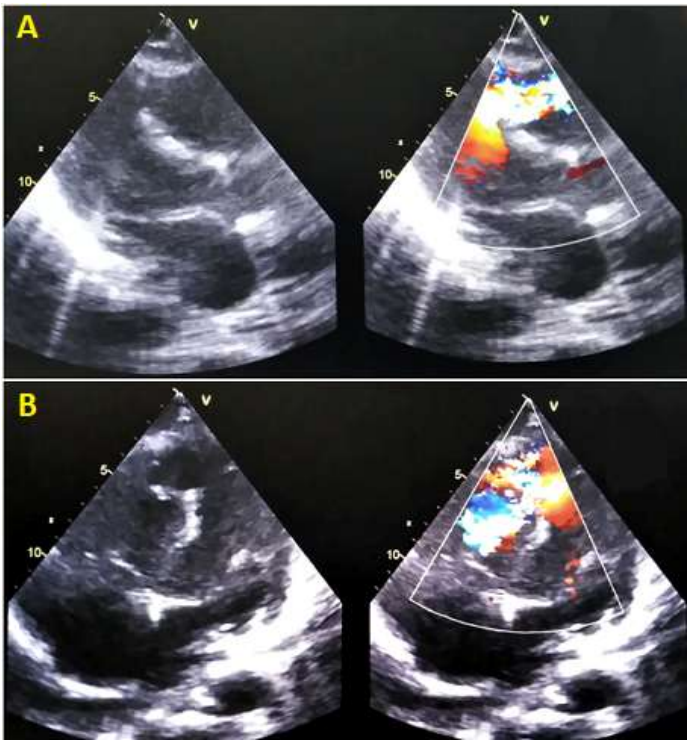

Figure 1: (A) two-dimensional transthoracic parasternal long axis view focusing on the apical VSD with color Doppler showing the left-to-right shunt; (B) two-dimensional transthoracic apical four-chamber zoom view focusing on the apical ventricular septal defect with the left-to-right shunt on color Doppler mode