A patient with chest pain during dobutamine stress echocardiography

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A 57-year-old male without any significant past medical history is admitted to the intensive care unit for a suspicion of acute coronary syndrome. He is a non-smoker and mentioned a mild hypercholesterolaemia. He reports an acute constrictive rest chest pain with left arm radiation, lasting 45 min and spontaneously resolving. Physical examination was normal.

Biological tests were normal with no inflammatory syndrome and no increase in troponin I at admission and 6 h later. ECG and transthoracic echocardiography at admission were normal. He had no recurrence of chest pain during the monitoring period. The patient was discharged after 24 h with aspirin 75 mg and atorvastatin 40 mg.

He was readmitted for a dobutamine stress echocardiography. At the maximal dose of dobutamine (40 μg/kg/min), we observed a recurrence of chest pain associated with wall motion asynergy in inferior segments followed by an ST-segment elevation on ECG in the inferior leads. ST-segment elevation resolution was observed after sublingual nitroglycerine and we performed urgent coronary angiography. Coronary angiogram showed nearly complete disappearance of the third segment stenosis.

Explore the full case and MCQs on the ESC website at http://www.escardio.org/education/eLearning/case-based.