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Cardiac tamponade in patient with Dressler syndrome: a very rare case with dilemmatic management

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Topic(s):
Pericardial Disease – Clinical

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Introduction
Dressler syndrome (DS) is a pericarditis that happened in prior myocardial infarction. Diagnosis of DS is a difficult one, because of the mimic of symptoms with other cardiac condition. The incidence of this case in reperfusion era is about 1-5%. Moreover, the cardiac tamponade in patient with DS has never been reported.

Case Description
A 41-years old male been hospitalized with chest pain for 1 day before admission. He had hospitalization history 3 weeks ago and been diagnosed as acute anterior STEMI 13 hours onset and underwent PCI 1 stent DES on LAD. Two weeks ago, patient controlled to outpatient clinic and been performed echo with a result EF 23% and LV thrombus. Then he had warfarin as additional treatment concomitantly with aspirin and ticagrelor. From physical examination there were no sign of cardiac tamponade. ECG showed sinus tachycardia and poor R wave progression. CXR showed water bottle configuration. Laboratory findings showed elevation of troponin I. Because the symptoms similarities, patient been diagnosed as NSTEMI and administrated with enoxaparin. At the 6th hours, patient had dyspnea and drop of blood pressure. We performed echo then found massive pericardial effusion (PE) with tamponade sign. We decided to perform pericardiocentesis even the patient in high bleeding risk. The pericardial fluid color was dark red (± 2000 cc). After the procedure, patient had oozing that been managed by manual compression and coagulopathy correction. The CRP and LED findings were positive with analysis and blood culture were negative. Then patient been diagnosed as DS and had additional treatment with high dose aspirin and colchicine. After 7 days hospitalization, patient was discharged and remain controlled to outpatient clinic in stable condition.

Discussion
The mechanism of DS was still unknown, but there were some hypotheses said that inflammation and antigen-antibody had major role. Diagnosis of DS was made based on sign of acute pericarditis accompanied by MI history for a couple weeks. PE in DS was rarely found as a severe one. In this case, the possible mechanism of cardiac tamponade because of triple therapy and late reperfusion in previous MI. This therapy would disrupt the granulation of vascular tissue in infarct area and lead to blood accumulation. The special precaution for pericardiocentesis in this patient that he was in high bleeding risk. But due to hemodynamic instability, the risk must be took for the patient's life. Oozing that happened was treated by manual compression and correction of coagulopathy. The pericarditis also resolved after administration of aspirin and colchicine.

Conclusion
Cardiac tamponade in DS is a very rare case. A possible mechanism of this condition was a triple therapy and late reperfusion history. Well diagnosis and management are mandatory to overcame condition and bleeding complication as a risk of pericardiocentesis.
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