

中文題目：多重血管之急性心肌梗塞處理

英文題目：Multi-vessel disease in ST segment elevation acute myocardial infarction

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## **Abstract**

ST elevation myocardial infarction (STEMI) represents the most challenging scenario among the spectrum of acute coronary syndromes. Primary percutaneous coronary intervention (PPCI) is the mainstream treatment strategy and the importance of revascularization to culprit vessel is supported by different guidelines. Initial electrocardiogram could give us some hints about which artery is the culprit lesion. However, approximately 50% STEMI patient is multi-vessel disease. Thus, not every culprit vessel could be predicted correctly and multi-vessel lesions are possible.

Our case is a 46-year-old male who came to ER due to acute chest pain. 12-lead electrocardiogram showed ST elevation over lead II, III, aVF and V1~6. Acute ST elevation myocardial infarction was diagnosed and primary percutaneous coronary intervention was arranged. Unfortunately, cardiogenic shock was presented before intervention. During PCI, angiography revealed three vessel diseases. Due to concurrent multiple leads ST segment elevation, culprit vessel could not be predicted precisely so angioplasty with bare metal stent implantation was performed to all 3 vessels. After intervention, his hemodynamic status became stabler gradually. After total 7 days hospitalization, he was discharged with further outpatient department follow-up.

In STEMI, revascularization of the culprit vessel is the core of treatment. Due to unclear culprit lesion, it isn't wise to randomly choose just one artery to revascularization under hemodynamic unstable situation like our patient.

Europe guidelines also state significant non-culprit lesions during primary PCI of the culprit vessel may be considered in selected patients and Non-IRA PCI during the index procedure should be considered in patient with cardiogenic shock. Recent data also suggest that intervention on both the culprit and non-culprit stenotic coronary arteries may yield better results. There are also many ongoing prospective comparing immediate multivessel PCI versus culprit lesion only PCI in patients with AMI complicated by cardiogenic shock.

In conclusion, the clinical practice should always take patient's hemodynamic stability and the severity of coronary stenosis into consideration even the culprit-only revascularization strategy have recommended in every related guidelines.