

中文題目：急性左主冠狀動脈血栓治療經驗

英文題目：The management experience of acute left main coronary artery thrombosis

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Introduction: Acute left main coronary artery (LMCA) thrombosis is rare and with high mortality rate. Most cases presented with acute myocardial infarction, cardiogenic shock or cardiac arrest. The optimal management strategy of acute LMCA thrombosis is still challenging and lack of evidence. Here, we presented a case with acute LMCA thrombosis treated successfully without emergent stenting or emergent coronary artery bypass surgery (CABG). Intracoronary optical coherence tomography (OCT) was used to evaluate the thrombosis in LMCA 3 months later and showed the residual red thrombus.

Case report: A 61-year-old male, with hypertension and smoking history, presented to our emergency department due to acute anterior chest pain with cold sweating and dyspnea. EKG showed ST elevation at aVL and diffuse ST depression over lead II, III, aVF and V1-V6. ST segment elevation myocardial infarction was impressed and emergent primary PCI was performed. Coronary angiography showed large thrombus in LMCA and 100% stenosis in left anterior descending artery (LAD) and left circumflex artery (LCx) with thrombus. Aspiration thrombectomy was performed and plain old balloon angioplasty (POBA) over LAD and LCx. Angiography showed TIMI 3 flow in LAD and LCx after aspiration thrombectomy and POBA despite still large thrombus in LMCA. We used GPIIb/IIIa inhibitor, heparin pump and dual antiplatelet for large thrombus in LMCA. The improvement in clinical symptoms and cardiac enzyme decreasing were noticed thereafter. The patient was given with triple antithrombotic therapy with warfarin, aspirin and plavix and discharged under relative stable condition. We arranged coronary angiography around 3 months later and showed no obstructive lesion and thrombus. Intracoronary OCT was used to detect the endothelial lesion and the residual thrombus. There is no thrombogenic endothelial lesion such as endothelial erosion or dissection but the residual red thrombus was found in LMCA. Thus we keep prescribing him triple antithrombotic therapy.

Discussion: Acute LMCA thrombosis is risky and challenging. The management strategy included emergent CABG, emergent stenting, thrombolysis or medical treatment with antithrombotic agents. Medical treatment may suitable for the patients with no evidence of ongoing ischemia, no atherosclerotic lesion of LMCA, no

significant atherosclerotic lesion in the remaining coronary artery, and TIMI 3 flow in the LAD and LCx arteries. Repeat angiography for thrombus evaluation is important after medical management. Intravascular ultrasound (IVUS) examination have been reported to evaluate the resolution of thrombus post-medical management. However, using OCT to evaluate the de novo LMCA thrombosis has never been reported. OCT offers superior resolution than IVUS and visualizes the surface of vessel lumen precisely. Tomoyuki et al. used OCT to assess the efficacy of thrombus aspiration in patient with STEMI, but no LMCA lesion was evaluated in that study. As we known, this is the first case with de novo LMCA thrombosis evaluated by the OCT in the follow-up coronary angiography.

Reference:

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