Multivessel disease in a patient taken to the catheter laboratory with acute myocardial infarction and cardiogenic shock

A 56-year-old male patient was admitted to the emergency room with sudden onset chest pain with concomitant dyspnea and cold diaphoresis. In his past medical history, he had old myocardial infarctions and a coronary bypass operation 5 years ago. His blood pressure was 80/60 mm Hg, and his heart rate was 105 beats/minute. There were rales in the middle and basal part of the lung. In his admission electrocardiogram (ECG), incomplete left bundle branch block, ST-segment depression in V3-6, and ST-segment elevation with pathologic Q wave in the inferior leads were seen (Fig. 1). He was taken to the catheter laboratory immediately, and a coronary angiogram was performed. In his coronary angiography, all of the native coronary arteries and saphenous grafts were occluded; only the left internal mammary artery (LIMA)-to-left anterior descending artery (LAD) graft was working, but the distal LAD was not seen after the anastomosis (Fig. 2, Video 1).

What is your treatment strategy?
1. Start revascularization with the right coronary artery
2. Start revascularization with the circumflex artery
3. Start revascularization with the distal LAD via LIMA
4. Emergency repeat coronary bypass operation

Video 1. Coronary angiography of the patient

Figure 1. Admission electrocardiography of the patient

Figure 2. A-D. Coronary angiography of the patient