A case of inferior ST elevation myocardial infarction with a huge thrombus and a severe calcified lesion treated by staged percutaneous coronary intervention

A 80's year-old man experienced acute onset of chest pain two days before the admission. When he visited our hospital, an electrocardiogram showed ST elevation in lead II, III, aVF. Emergency coronary angiogram revealed subtotal occlusion at mid segment of right coronary artery (RCA) with a huge thrombus. In addition, there was a severe calcified stenosis at proximal segment of RCA. Because ST elevation on electrocardiogram and his chest pain remained, primary percutaneous coronary intervention (PCI) was undertaken. At the beginning, any device could not be delivered because of the proximal calcified lesion. After the lesion was dilated with small balloon, we became able to deliver devices fortunately. However, good coronary flow could not be obtained despite of multiple aspiration. Therefore, excimer laser coronary atherectomy was undertaken, using a 1.4mm catheter. After some trains, coronary flow dramatically improved, but a culprit stenosis remained at distal potion of RCA. So, we decided to deploy a drug eluting stent. Following stent implantation, thrombus emerged again in the stent. Although several aspirations were undertaken, TIMI3 flow could not be obtained. Finally, intra-coronary balloon pumping (IABP) was inserted, and the first session was terminated.

Two weeks after, the second session was performed for a follow angiography and the treatment of the proximal calcified lesion. Angiography revealed the thrombus in the stent almost disappeared. We treated only the proximal lesion with rotablation following stenting and successful revascularization was achieved.