Dual myocardial bridges successfully treated with intracoronary stent placement

A 42 year-old male was admitted to our hospital with anginal chest pain during exercise, which had begun 2 months ago and increased progressively. He had no coronary risk factors other than tobacco use. Rest electrocardiogram revealed biphasic T waves in leads V1-3, DI and aVL and there were no significant changes in myocardial markers. Transthoracic echocardiography revealed dyskinetic motion in apical region. The patient was diagnosed as acute coronary syndrome and referred to early coronary angiography.

Anteroposterior cranial view demonstrated twin myocardial bridges in the course of left anterior descending (LAD) artery, both of which were causing 90% systolic compression. The second diagonal branch of LAD was arising between the bridges and was spared from the compressive effect of the muscle bundle (Fig. 1A and 1B). No atherosclerotic coronary lesion was observed. Percutaneous coronary intervention was planned as the patient remained symptomatic despite aggressive medical therapy. A primary 3.5 x 18 mm tubular bare stent with high radial force was implanted to distal bridge and a 3.5 x 30 mm similar stent was implanted to proximal bridge (Fig. 1C and 1D, respectively). Final angiographic result was excellent and left ventricular segmentary motion was normal on predischarge control echocardiography. On the 6th month control angiography there was no in-stent restenosis and the patient remained asymptomatic.

Figure 1. Diastolic (A) and systolic (B-C-D) images at 30° anteroposterior cranial view. Dual myocardial bridges distal and proximal to second diagonal branch of left anterior descending artery with 90% systolic compression (B, large and small arrows). Excellent angiographic result after stent placement to the distal (C, arrow heads) and proximal bridge (D).