Left main dissection provoked by guiding catheter during primary percutaneous coronary intervention

Tomislav Jakljević*, Vjekoslav Tomulić

University Hospital Center Rijeka, Rijeka, Croatia

Left main dissection provoked by guiding catheter (iatrogenic) is rare, possible and potentially fatal complication during diagnostic coronary angiography and percutaneous coronary intervention. The incidence in literature is around 0.1%, although there is an objective chance that this complication remains underreported¹. Left main dissection could be consequence of inadvertent catheter handling, but sometimes just a result of diffuse atherosclerosis and "fragile" coronary arteries². It can be treated conservatively, with stent implantation or coronary artery bypass grafting³. We report a case of iatrogenic left main dissection in primary percutaneous coronary intervention, which, to our knowledge, have never been reported.

A 70-years old female patient was transferred to our hospital because of anteroseptolateral STEMI. Unfortunately "pain to needle" time was over 10 hours because of technical transportation problems. Her comorbidities were diabetes mellitus and arterial hypertension. On admission to our Emergency department she was in Killip 1 stage, blood pressure was 140/90 mmHg. Urgent angiogram was performed and showed acute occlusion of proximal LAD. EBU 3.5 guiding catheter was placed and the lesion successfully crossed with a "workhorse" coronary wire. After balloon predilatation successful stenting of the lesion was performed. Final control angiogram presented catheter induced dissection of left main towards strong circumflex branch. We placed another "workhorse" coronary wire in true circumflex

lumen. Direct stenting of left main and proximal circumflex artery was performed with TIMI 3 flow. After recrossing the LAD ostium we performed plain balloon dilatation and achieved an optimal result. On the third hospitalization day the patient developed cardiogenic shock with total atrioventricular block. Inoconstrictor support was started and percutaneous temporary pacemaker implanted. Control coronary angiogram showed patent left coronary artery and we decided to implant intraaortic balloon pump. At that moment pulseless electrical activity occurred. Resuscitation measures according to European resuscitation council protocol were performed but unfortunately without any success.

KEYWORDS: iatrogenic dissection, left main stem, percutaneous coronary intervention.

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*Address for correspondence: Klinički bolnički centar Rijeka, Tome Stržića 3, HR-51000 Rijeka, Croatia.

Phone: +385-51-407-149

Fax: +385-51-218-059

E-mail: tjakljev@inet.hr

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