Anterior wall acute ST-segment elevation myocardial infarction probably due vasospastic occlusion of proximal left anterior descending artery: to stent or not to stent

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A 35-year-old female patient, weight 54 kg, height 173 cm, BMI 18.0 was admitted to our PCI center for acute anterior STEMI. Routine myocardial necrosis marker CK 737, cTnT 1.0 was positive. From cardiovascular risk factors; 15 cigarettes/a day and taking contraception pills. She was a professional handball player a few years ago and now occasionally plays handball in the Veterans League. 6 days prior to admission after the game, she felt retrosternal pain extending into the epigastrium. The pain reoccurred on the next day, the dyspepsia was diagnosed, she was hospitalized in an outpatient clinic, underwent gastroscopy with negative results. ECG was performed on several occasions which showed no abnormality detected. On the day of relocation, the pain reoccurred starting in the upper abdomen accompanied with hypotension and ECG changes. We performed primary PCI which showed occlusion of high proximal segment of the LAD without thrombus formation. RCA was dominant with smooth walls with retrograde collaterals to LAD appearing only fragmentary. Acx hypoplastic also without atherosclerotic changes. The guidewire was introduced through the site of occlusion in LAD up to the apex and extensive balloon dilatation with different diameters was performed without success and with pronounced "recoil phenomenon". Given the length of the lesion over 60 mm, the stent implantation is abandoned, in order to avoid a "full-metal jacket"^{2,3,4}. The course of the disease according to the procedure went without complications. Echocardiogram showed normal cavitory size of the heart. LVEDD 52 mm, EF

50%. Anterior wall hypokinesis. The follow-up coronarography after one month showed the normally patent LAD without atherosclerotic lesions and without retrograde collaterals from RCA.

Conclusion: The seemingly dubious decision on no stenting in the occluded LAD with length >60 mm proved to be justified. A pronounced vasospasm along the whole LAD refractory to PTCA was obviously in question. We are dealing with an unresolved issue as to whether the sports injury or nicotineism accompanied by abuse of contraceptive pills or all together contributed to this problem.

KEYWORDS: long lesions, recoil phenomena, vasospastic occlusion, full-metal jacket intervention.

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