

“Double” ST-elevation acute myocardial infarction evolving in a patient transferred for primary PCI over a distance of 180 km*

A 62-years non-smoking man with diabetes, hypertension, and hypercholesterolemia called emergency medical service (EMS) in the Czech town of Český Krumlov on December 4, 2005 at 12.45 p.m. because of 20-minute severe acute chest pain with marked dyspnoe. EMS transferred the patient to the community hospital in the same town. Admission ECG is in *Figure 1a*. The patient received intravenous aspirin (lysine salicylate 0.5 g) and

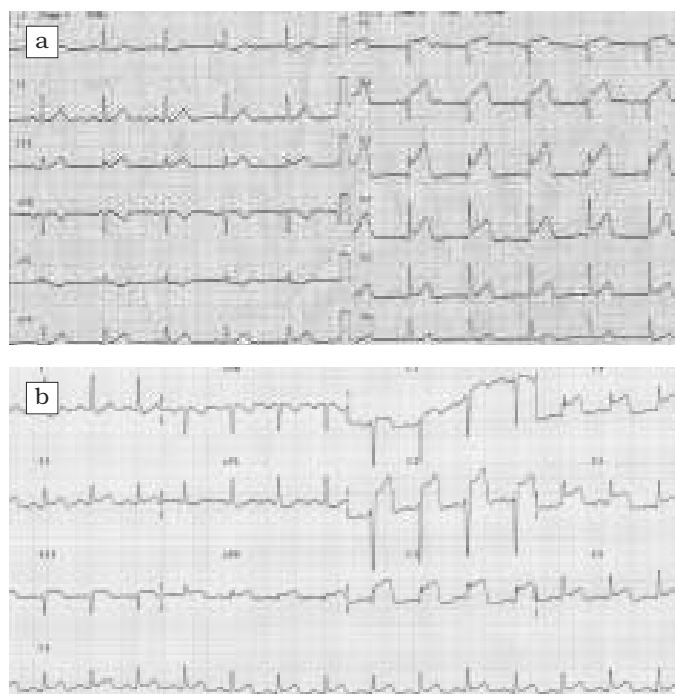


Figure 1 Electrocardiograms upon the first medical contact (**a**) and upon arrival to the cath lab (**b**)

heparin (10,000 U) at 1.05 p.m. and the nearest PCI center in České Budějovice (distance, 24 km) was called. This center was unable to admit the patient for technical reasons. Thus, our PCI center in Prague (distance, 180 km) was contacted and helicopter transfer was immediately arranged. The helicopter left Český Krumlov at 1.30 p.m. and landed in our heliport at 2.25 p.m. The patient was in Killip class II; however, the chest pain diminished during the transfer. The ECG upon arrival to our cath lab at 2.40 p.m. is in *Figure 1b* (note the progression in leads II, III, aVF, V5–6). Coronary

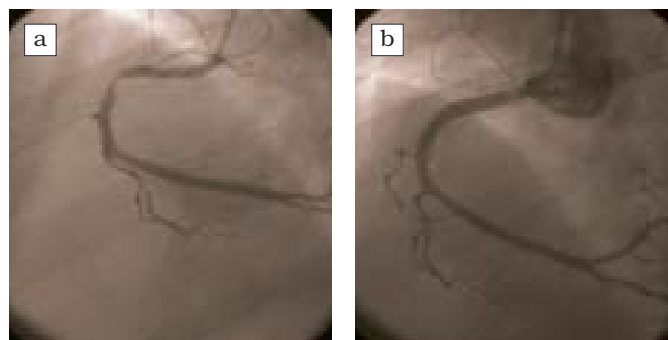


Figure 2 The right coronary artery before PCI (**a**) and after direct stenting (**b**)

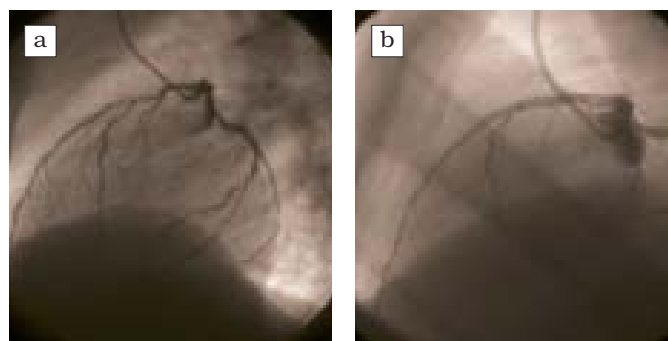


Figure 3 The left anterior descending artery before PCI (**a**) and after stenting (**b**)

angiograms of the right (2.50 p.m., *Figure 2a*) and left coronary arteries (*Figure 3a*) supported the ECG picture of simultaneous anterior and inferior transmural ischemia. Direct stent implantation in the proximal right coronary artery (3.15 p.m., *Figure 2b*) was followed by stent placement after predilation of the proximal left anterior descending coronary artery (3.30 p.m., *Figure 3b*). Interestingly, the ECG changes during balloon inflation in the right coronary artery led to an increase in ST-elevations in standard leads II, III, while ECG changes during balloon inflation in the left anterior descending artery caused ST-depression in these leads and ST-elevation in lead I, supporting the involvement of both coronary arteries in the development of this “double infarction”. The ensuing course was uneventful, and the patient was transferred back to Český Krumlov on December 6, 2005.

Petr Widimský, Radovan Jirmář, Zuzana Mořovská

Cardiocenter, 3rd Faculty of Medicine, Charles University, and Královské Vinohrady University Hospital, Prague, Czech Republic

Address: Petr Widimsky, MD, DrSc., FESC, Cardiocenter, Charles University Prague, Ruská 87, 110 00 Prague 10, Czech Republic, e-mail: widim@fnkv.cz

*Supported by grant MSM0021620817.