

# Coronary artery bypass graft surgery in a 103-year-old female patient

Pomost aortalno-wieńcowy u 103-letniej pacjentki

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A 103-year-old female with arterial hypertension, after myocardial infarction 17 years ago, was admitted to the hospital of Wrocław Medical University during non-ST elevation myocardial infarction. Echocardiography demonstrated normokinetic myocardium, coronary angiography chronic occlusion of the right coronary artery with well developed collateral circulation from the left coronary artery (Fig. 1), multi-level and left anterior descending artery (LAD) stenosis up to 80% at its ostium, and two critical narrowings before and at the level of giving off a large septal branch. After analysis by the Heart Team in Centre for Heart Diseases in Zabrze the patient was qualified for coronary artery bypass grafting. The patient was in NYHA II and CCS I class. The physical examination revealed no significant abnormalities, only body mass index 26.7 kg/m<sup>2</sup>. The heart rhythm was sinus, regular, with a frequency of 67/min. Transthoracic echocardiogram showed left ventricular ejection fraction (LVEF) 47% and no significant valvular defect. The heart chambers were not enlarged. The MMSE score was 25 points, which indicates a mild deterioration of cognitive functions; however, there were no grounds to consider further diagnostics for dementia. All laboratory exams were normal. Blood flow in carotid arteries was normal. The EuroSCORE operative risk was high and reached 13 points (9 for age, 1 for gender, 1 for LVEF 47%, 2 for myocardial infarction < 90 days) with a logistic score of 37.86%. The surgery was carried out via lateral mini-thoracotomy, without the use of extracorporeal circulation, on a beating heart. An end-to-side anastomosis was performed between thoracoscopically harvested left internal thoracic artery (LITA) and LAD. The membranes of the pericardial sac and of the parietal pleura were notably delicate, whilst the LITA and LAD vessel walls appeared to be very fragile. The intraoperative and early post-operative course were uncomplicated. The patient was extubated as planned, with good respiratory and circulatory function. Follow-up examination supplementation was subsequently started. The patient underwent a standard process of in-hospital rehabilitation, and from the third post-operative day was able to walk down the hospital hallway. On the 15<sup>th</sup> post-operative day, the patient was discharged in very good condition; the wound was healed by primary intention. On discharge, long-term antiplatelet therapy (acetylsalicylic acid, clopidogrel until October 2011), amlodipine, atorvastatin, angiotensin converting enzyme, beta-blocker, and sartan was recommended. The follow-up visits took place 13 months and four years from surgery. The patient reported fresh blood in the stool — clopidogrel was discontinued. In October 2011 syncope with hypotonia 80/50 mm Hg was recorded. As a consequence, the pharmacotherapy was modified and the dose of calcium-blocker was reduced. Electrocardiogram registration showed a normal sinus rhythm with a frequency of 69/min. The echocardiogram showed an increase in LVEF to 53%, as compared with the pre-operative results; the heart chambers were not enlarged.



Figure 1. Left anterior descending artery

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