Transcatheter aortic-valve implantation at the University Hospital Center Zagreb: case report and our first results

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We present a case of 76-year old woman who underwent surgical mitral valve replacement with mechanical valve prosthesis 15 years ago. Other comorbidities include hypertension, dyslipidemia, atrial fibrillation, bilateral 60% carotid artery stenosis, cured skin melanoma and ischemic stroke. Ambulatory TTE was performed because of progressive dyspnea and revealed severe aortic stenosis (peak gradient 100 mmHg, aortic valve area 0.5 cm²) with preserved LV systolic function and normal function of mechanical mitral valve. Coronary angiography was normal. Because of very high surgical risk (EUROSCORE 25.75, STS 20.1) and previous cardiac surgery the patient was referred to our Heart Team for TAVI. Under general anesthesia a self-expanding 26mm Medtronic CoreValve was successfully implanted via transfemoral approach. Because of previously implanted mechanical mitral valve the self-expanding valve was highly implanted in order to avoid collision with mechanical prosthesis. Arterial access site was successfully closed with Prostar 10 Fr closure device. Post-procedure TTE showed excellent function of self-expanding valve with peak gradient of 15 mmHg and only trace of aortic regurgitation. The patient is doing well at 6 months follow-up.

A total of 6 TAVI were performed at University Hospital Center Zagreb. The patients were elderly (mean age 82.17;

76-86) and highly symptomatic with very high surgical risk (mean EUROSCORE 14.45, mean STS 19.6²). Elective PCI of LMCA was performed in one patient before the procedure. All patients were implanted with self-expanding Medtronic CoreValves in general anesthesia via transfemoral approach. Artery access sites were successfully closed in all patients with Prostar closure device. In 2 of our patients permanent pacemaker has to be implanted after valve implantation. There was no in-hospital mortality and mean hospital length of stay was 10.33 days (7-13 days). One patient died 2 months after discharge because of gastro-intestinal bleeding.

KEYWORDS: aortic stenosis, mechanical mitral valve prosthesis, transcatheter aortic valve implantation.

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