

Transkateterska zamjena aortnog zaliska transkarotidnim pristupom

Transcatheter aortic valve implantation through a transcarotid approach

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Pacijent s hipertenzijom, šećernom bolešću, kroničnom opstruktivnom bolesti pluća (KOBP) i kroničnom bubrežnom bolešću, upućen je na kardiološki pregled zbog progresije aortne stenozne. Godine 2002. učinjeno mu je trostruko aortokoronarno premoštenje. Ultrazvučnim pregledom srca potvrđena je teška aortna stenozna s maksimalnim gradijentom oko 95 mmHg te AVA (aortic valve area) 0.7 cm². Koronarografijom su verificirane ne prohodne dvije prenosnice, dok je prenosnica na OMI bila ostijalno subokludirana te je implantiran stent. Zbog rizika koji nosi resternotomija, teškog KOPB-a i brojnih komorbiditeta odustalo se od kardiokirurške operacije te je postavljena indikacija za transkatetersku zamjenu aortnog zaliska (TAVI).¹ Transezofagijskim ultrazvukom (TEE) verificiran je tromb u području descendentne aorte, odnosno mikrosomatni supstrat zbog kojeg je zahvat odgođen. Oslakavanjem pomoću MSCT aortografije nađeno je aneurizmatско proširenje abdominalne aorte promjera 2,5 cm. U sljedećoj hospitalizaciji učinjena je ponovna obrada, aortografija aortoilijačnih krvnih žila, koje su morfologijom i dimenzijama podržavale mogućnost perkutane ugradnje aortnog zaliska te TEE kojim se ne prikaže ranije opisivana intraluminalna tvorba u aorti. Postupak TAVI učinjen je transkarotidnim pristupom zbog nemogućnosti transfemoralnog pristupa i povećanog transaortalnog rizika zbog teškog KOPB-a. Neposredno prije postupka učinjena je MSCT angiografija karotidnih arterija što je pridonijelo postintervencijskoj komplikaciji kontrastom inducirane nefropatije. Procedura implantacije aortne valvule prošla je bez komplikacija s minimalnom paravalvularnom insuficijencijom. Pacijent je ubrzo po zahvatu razvio anuriju što je zahtijevalo dijalizu nakon koje je došlo do oporavka bubrežne funkcije. Telemetrijski je opažena i ekotična ventrikulska aktivnost s kratkotrajnim epizodama ventrikulske tahikardije te je u terapiju uveden amiodaron. Kontrolni ultrazvuk srca ukazivao je na uredan rad umjetne CoreValve proteze, a maksimalni sistolički gradijent iznosio je 13 mmHg. Pacijent je otpušten kući dobrog općeg stanja te normaliziranih laboratorijskih parametara.

Patient with hypertension, diabetes, COPD (chronic obstructive pulmonary disease) and chronic kidney disease, was referred to a cardiologist examination because of aortic stenosis progression. In 2002 he underwent triple coronary artery bypass surgery. By transthoracic echocardiography severe aortic stenosis was confirmed with maximum gradient around 95 mmHg, and AVA (aortic valve area) 0.7 cm². Two passable bypasses were verified by coronography, while bypass on OMI was ostially suboccluded, so a stent had to be implanted. Because of the risk of resternotomy, severe COPD and numerous comorbidities, cardiosurgical operation was not an option, so transcatheter aortic valve implantation (TAVI) became viable option.¹ By transesophageal echocardiography (TEE) we have verified thrombus in the area of descending aorta, specifically microsomatic substance that delayed the procedure. By MSCT aortography we have found aneurysmal widening of the abdominal aorta with diameter of 2.5 cm. During the next hospitalization he was reprocessed by angiography of aortoiliac blood vessels, which by morphology and dimensions were supporting the possibility of percutaneous implantation of aortic valve, also TEE which does not show earlier described intraluminal formation in the aorta. TAVI procedure was done by transcarotid approach because of impossibility of transfemoral approach and because of increased transaortic risk because of severe COPD. Just before the procedure, MSCT angiography of carotid arteries was done which contributed to postintervention complication of contrast-induced nephropathy. The procedure of aortic valve implantation went without complication with minimal paravalvular insufficiency. Soon after the procedure patient developed anuria, which required dialysis after which kidney function was restored to normal. By medical telemetry we spotted ectopic ventricular activity with short term episodes of ventricular tachycardia, so amiodarone was introduced into therapy. Regular echocardiography ultrasound showed normal function of CoreValve, and maximum systolic gradient was 13 mmHg. Patient was discharged home in generally good condition and normalized laboratory values.

LITERATURE

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