

## Koronarno ventrikulska fistula u bolesnika s ortotopičnom transplantacijom srca nakon ponavljanih biopsija endomiokarda

### Coronary-cameral fistula in a patient with orthotopic heart transplantation after repeated endomyocardial biopsy

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**Uvod:** Koronarno ventrikulska fistula je rijetka anomalija koja se obično slučajno ustanovi tijekom dijagnostičke koronarografije. Jatrogene fistule nastaju posljedično nekirurškim intervencijama (biopsija endomiokarda, ugradnja elektroda elektrostimulatora srca i implantabilnog kardioverter defibrilatora) ili kirurškim zahvatima srca.<sup>1,2</sup> Transplantacija srca je uspješna terapija kod terminalne faze srčanog popuštanja, dok je odbacivanje alografta čest problem nakon transplantacije. Stoga, biopsija endomiokarda ostaje zlatni standard u procjeni odbacivanja presatka.

**Prikaz slučaja:** Predstavljamo 43-godišnjeg bolesnika s dilatativnom kardiomiopatijom kojemu je učinjena hitna ortotopična transplantacija srca u siječnju 2012. godine. Postproceduralni tijek je kompliciran masivnom trikuspidalnom regurgitacijom koja je zahtjevala valvuloplastiku s ugradnjom prstena. U prvoj godini nije bilo daljnjih komplikacija, a kod bolesnika je učinjeno 8 redovitih biopsija endomiokarda te nije nađeno znakova odbacivanja alografta. U rutinskom praćenju, godinu dana nakon transplantacije srca, koronarografijom je primjećena koronarno ventrikulska fistula između desne koronarne arterije i desnog ventrikula. Desnostrani tlakovi bili su uredni i nije nađeno značajnog povišenja saturacije kisikom krvi iz desnog atrija, desnog ventrikula i pulmonalne arterije, stoga je izabaran konzervativni pristup. Nakon tri godine bolesnik je i dalje bez simptoma te urednih desnostranih tlakova i minutnog volumena.

**Zaključak:** Pretpostavljamo da je fistula nastala tijekom jedne od biopsije endomiokarda. Pojavnost koronarno ventrikulske fistule je češća u transplantiranih bolesnika u usporedbi s općom populacijom (5%–8% nasuprot 0,2%), a uzrokovana je ponavljanim biopsijama endomiokarda. Kao i u ovom prikazu, koronarno ventrikulska fistula je najčešće asimptomatska, ima tendenciju spontanog razrješenja i urednog je kliničkog tijeka, a vrlo rijetko zahtjeva intervenciju.

**Introduction:** Coronary-cameral fistulae (CCF) are infrequent anomalies which are in general incidentally found during diagnostic coronary angiography. The iatrogenic fistulas are secondary to non-surgical interventions (endomyocardial biopsy (EMB), permanent pacing and ICD leads) or cardiac surgical procedures.<sup>1,2</sup> Cardiac transplantation is an effective therapy for end-stage heart failure, with allograft rejection as a common problem after transplant. Thus, EMBs still remain the gold standard for its surveillance.

**Case report:** We present a case of a 43-years-old-male patient with dilatative cardiomyopathy who underwent an orthotopic, highly urgent heart transplantation in January 2012. The postprocedural recovery was complicated by a massive tricuspid regurgitation that required a tricuspid valve repair. The rest of the first year was uneventful, and the patient underwent 8 regular EMBs, which revealed no signs of cardiac allograft rejection. On a routine follow up angiogram one year after the heart transplantation a CCF between the right coronary artery and right ventricle was detected. Right-sided pressures were normal and there was no significant step-up in blood oxygen saturations from the right atrium to the right ventricle or pulmonary artery, so a conservative approach was chosen. Three years later the patient remains asymptomatic, with normal right sided pressures and cardiac output.

**Conclusion:** We hypothesize that the fistula in this patient developed during one of these EMBs. Prevalence of a CCFs is more common in the transplant population compared with the general population (5%–8% vs 0.2%) due to repetitive EMB. Like in this case, CCFs are mostly asymptomatic, with a tendency to spontaneously resolve and have a benign clinical outcome, and only seldom require intervention.

#### LITERATURE

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