

Heart transplantation in patient with diabetes- related microvascular and macrovascular complications

Vedrana Vlahović^a, Dora Fabijanović^b, Maja Čikeš^{a,b}, Boško Skorić^{a,b}, Davor Miličić^{a,b}

^a*School of Medicine University of Zagreb*

^b*University Hospital Centre Zagreb*

Vedrana Vlahović 0000-0002-8021-4855, Dora Fabijanović 0000-0003-2633-3439, Maja Čikeš 0000-0002-4772-5549, Boško Skorić 0000-0001-5979-2346, Davor Miličić 0000-0001-9101-1570

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Cardiac transplantation is a method of choice in the treatment of patients with end-stage heart failure (HF) whose life expectancy, despite the optimal medical therapy is less than one year. Number of patients with diabetes are increasing at alarming rates. Some studies have shown an increased risk of post-transplant infection, transplanted organ rejection, renal failure and mortality in diabetic recipients. A 38-year-old African American male patient with end-stage ischemic biventricular cardiomyopathy and diabetes mellitus type 1 with moderate chronic renal failure, was transplanted in August 2014. A few days following the transplantation his renal function continued to deteriorate and chronic haemodialysis was initiated. During the next four years, the regular heart biopsies showed no signs of acute cellular or humoral rejection and echocardiography showed normal graft function. In February 2018 the patient was listed for kidney transplantation. In April 2018 the patient presented with septic shock. Due to the severe eosinophilia combined with culture-negative severe sepsis, complete viral and parasitic serology was performed. All tests came back negative. Bone marrow aspiration showed only eosinophilia. Due to the sepsis of unknown origin, the patient was treated with broad-spectrum antibiotic therapy without an effective response to applied therapy. Despite of the all intensive care treatment, the patient died. Autopsy showed a pancarditis possibly caused by *Trypanosoma cruzi* or *Toxoplasma gondii*. In conclusion, cardiac transplantation can be performed in diabetic patients with chronic renal failure, but with significantly increased risk for further renal deterioration and even the need for chronic haemodialysis.