

P1686

Inverted biventricular takotsubo syndrome: early onset in heart transplanted patient

Vriz O.; Al Humeid M.; Adham M.; Al Amro B.; Galzerano D.; Al Admawi M.; Al Sergiani H.; Al Hussein M.; Al Buraiki J.

King Faisal Specialist Hospital & Research Centre, Riyadh, Saudi Arabia

Introduction. Takotsubo syndrome (TTS) is supposed to be a disturbances of myocardial microcirculation and increased catecholamine concentration (ie, epinephrine, norepinephrine, and dopamine), could be responsible of microvascular spasms or myocyte involvement. Catecholamine increased is related to sympathetic overactivity caused by stress but also as inotropic drugs.

A 39-year-old women underwent heart transplant due to rheumatic heart disease, status post mitral valve repair, in New York Heart Association Class IV heart failure despite optimal therapy. The donor was a 36-year-old young women without significant past medical history. The echocardiogram before explantation was normal and palpation of the epicardial coronary arteries did not reveal any gross pathology, areas of atheromatous disease, or calcium.

An orthotopic heart transplantation was carried out using the bicaval technique without any complication. The postoperative course was in post-surgery intensive care unite with the patient on mechanical ventilation and inotropic support. Within the first 24-hours, changes in T wave were observed and the echocardiography revealed normal left ventricle (LV) size, LV systolic function was mildly reduced (Ejection Fraction 45- 50%), presence of wall motion abnormalities characterized by akinesia of the basal septum, dyskinesia of the basal segment of the lateral wall and hypokinesia of the basal segments of the other walls and akinesia of the basal segments of the right ventricle (RV) suggesting TTS. Because of the donor's age and risk profile, epicardial coronary artery disease was not considered to be the causing factor of the wall motion abnormality, coronary catheterization plus biopsy was done 7 days later with no evidence of coronary obstruction and biopsy result showed 1R rejection. The echocardiogram performed in the same day showed complete recovery of the wall motion abnormalities while the global strain was still low for the basal segments either for LV or RV.

The rest of the hospitalization was uneventful and she was discharged after 10 days from heart transplant and the echocardiographic study showed an additional improvement of the global strain for both ventricle but not complete recovery.

Conclusion. This is a rare case of TC that happened the first day after heart transplant, when the heart is denervated. We hypothesized that the present case of TTS was more related to the drug inotropic support and by epinephrine released by suprarenal medulla rather than endogenous catecholamines released locally by the systemic nervous.

Figure 1.

First echocardiographic exam during the acute phase of TTS, LV GLS was -6.5% and RV free wall GLS -4% . After 7 days the LV GLS was -9.1% and RV free wall was -7.6% . After 3 weeks the LV GLS was -10.5% and the RV free wall was -11% .

Abstract P1686 Figure.

