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From A Cardiogenic Shock to A Cardiac Transplant

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Our patient 16 years old male who was diagnosed type 1 DM and dilated biventricular cardiomyopathy in 2018 whose general condition rapidly deteriorated over

2 weeks prior to his admission with cardiogenic shock in a tertiary care center and transferred to our quaternary care center. Our advanced heart failure and cardiac transplant team was at bedside on his arrival.

Shortly after admission on Nov. 1, 2019, he started to have recurrent VF with associated cardiac arrest required CPR and multiple DC shocks. VA-ECMO support was initiated percutaneously on Nov. 1, 2019 to support his organ perfusion and hemodynamics due to recurrent episodes VF cardiac arrest.

The work up for VAD/transplant was initiated. He deemed not a candidate for LVAD giving his bad RV. He was successfully extubated on November 5th 2019 and a successful trial to ambulate while being on ECMO was done next day but unfortunately, he again developed recurrent VT/VF while on ECMO and Amiodarone was restarted.

A matching heart transplant donor was found and orthotopic heart transplantation was

performed on November 6th 2019 (6th day of presentation) that was uncomplicated with total ischemic time of 90 minutes. He had a smooth postoperative course and was discharged home 18 days later because of time taken to adjust Tacrolimus dose.

We report one of the fastest cardiac transplant cases in the Middle East and North Africa (MENA) region in the setting of a newly established heart transplant program.

Take Home Messages

- Primary cardiomyopathies can have an indolent or progressive course
- A multi-disciplinary "shock team" approach can lead to timely diagnostic and therapeutic interventions to improve hemodynamics and minimize end-organ damage
- Orthotropic heart transplantation (OHT) is a definitive therapy for advanced cardiomyopathies, but requires the timely identification of a suitable donor.
- Our experience at CCAD includes 2 cases of OHT for recipients that were INTERMACS 1 profile, including this case. Both patients have done well.
- We describe the case of successful heart transplantation within 6 days of presentation with cardiogenic shock.