

An Immunosuppression Tightrope: Successful Heart Transplant after Giant Cell Myocarditis in an HIV Patient Complicated by Recurrent Giant Cell Myocarditis and Kaposi Sarcoma

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INTRODUCTION

- Giant Cell Myocarditis (GCM) can be fatal without cardiac transplant
- Due to risk of recurrent GCM, transplant patients are maintained on higher immunosuppression (IS)
- HIV patients are now considered for transplant given modern antiretrovirals
- Currently, there is little experience with treatment of GCM with transplant in HIV patients

OBJECTIVE

- Case study highlights the complex immunosuppression tightrope balance required to prevent recurrent GCM after transplant while avoiding HIV opportunistic infections

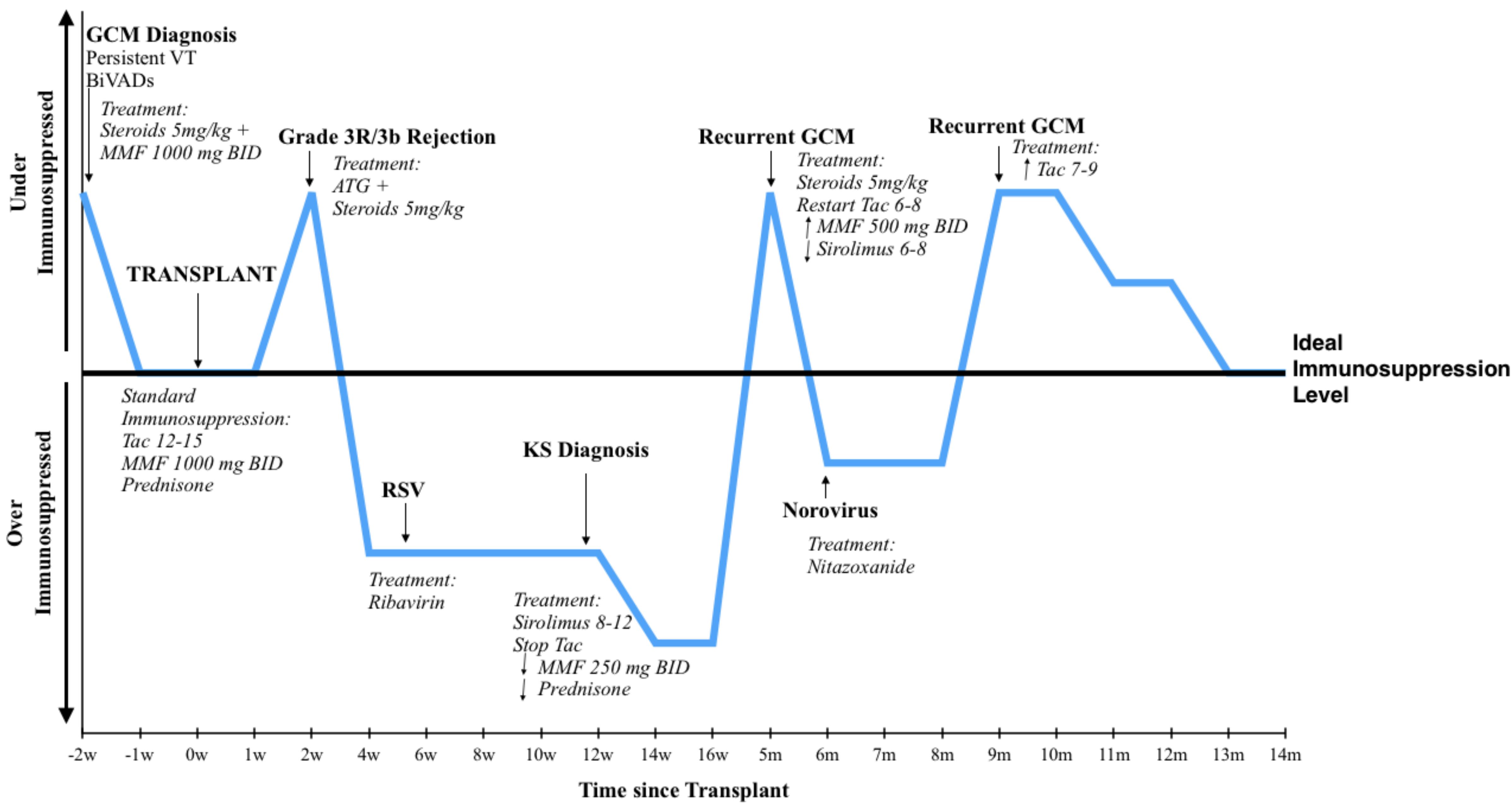
DISCLOSURES

- None

CASE REPORT

- 33 year old male presented with acute HF symptoms, recurrent VT, & cardiogenic shock. PMH of controlled HIV.
- Cardiac biopsy showed GCM
- Developed refractory VT and shock despite high-dose steroids and mycophenolate mofetil (MMF), placed on biventricular support
- Underwent cardiac transplant with unremarkable surgical course; Initial IS: steroids, MMF, tacrolimus
- Initial surveillance biopsy: severe rejection (grade 3R) requiring treatment with thymoglobulin + pulse steroids. Subsequent biopsies improved.
- 2 months later, hospitalized with RSV and new purple nodular rash; CD4 count decreased. Pathology of nodules + Kaposi Sarcoma (KS)
- IS reduced by decreasing steroids, MMF, and transitioning tacrolimus to sirolimus
- He developed leukopenia requiring reductions in MMF and G-CSF
- 2 months later, biopsy with recurrent GCM → tacrolimus restarted
- Subsequent biopsies with no evidence of GCM or rejection; KS resolved
- Doing well 2 years post-transplant**

Immunosuppression Tightrope after OHT for Giant Cell Myocarditis in a Patient with HIV



Legend: — Degree of Immunosuppression

ATG - Antithymocyte globulin

HIV - Human Immunodeficiency Virus

OHT - Orthotopic Heart Transplant

BiVADs - Biventricular Assist Devices

KS - Kaposi Sarcoma

RSV - Respiratory Syncytial Virus

GCM - Giant Cell Myocarditis

MMF - mycophenolate mofetil

Tac - Tacrolimus

VT - Ventricular Tachycardia

CONCLUSIONS

- Balancing IS in transplant recipients with concomitant immune related diseases is challenging.
- With individualized surveillance and IS titration, even those patients with potentially fatal recurrent GCM and KS with HIV can achieve the correct balance for successful outcomes.

