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From Diagnosis to Recovery: Addressing Rare Malaria with Travel History Using Standard and Apheresis Therapies

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This case report details the diagnosis, treatment, and management of a rare case of severe malaria in a 57-year-old male with a significant travel history, having returned from Sudan where he worked as a textile master for three years. Despite initial improvement after standard malaria treatment 1.5 years prior in Sudan, the patient presented with high fever, chills, shivering, weakness, and loss of appetite in October 2023. Laboratory findings indicated an infection, and an abdominal ultrasound revealed hepatic steatosis and splenomegaly. A peripheral smear confirmed the presence of Plasmodium vivax. Given the severity of the patient's condition, characterized by hypotension and the risk of complications due to his background of diabetes, hypertension, and cardiovascular disease, he was treated with a combination of standard antimalarial therapy (artemether, lumefantrine, and primaquine) and erythrocyte exchange apheresis. This multidisciplinary approach led to significant improvement in his health. This case underscores the importance of considering travel history in the differential diagnosis and highlights the efficacy of combining erythrocyte exchange apheresis with standard antimalarial therapy in managing severe cases of malaria, which is particularly rare in non-endemic regions.

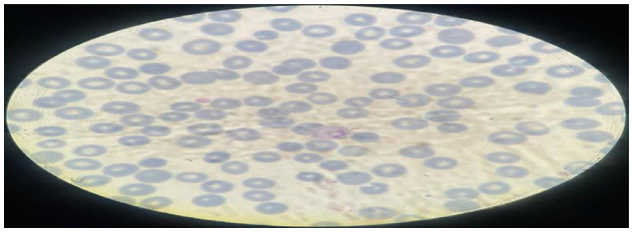

Image 1. Microscopic image of Plasmodium.

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PP 25

Efficacy Assessment of Cytomegalovirus-Specific Immunoglobulins for the Management of CMV Reactivation in High-Risk Hematopoietic Stem Cell Transplant Recipients

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Background: Cytomegalovirus (CMV) infection remains a prevalent and an important challenge encountered post haematopoietic stem cell transplantation (HSCT). If left unaddressed, CMV infection can escalate to CMV disease with adverse outcomes. Additionally, CMV infection alone can indirectly contribute to reduced overall survival (OS) and increased non-relapse mortality (NRM). Prevention serves as the cornerstone for managing CMV infection, while early pre-emptive strategies are employed to mitigate the risk of end-organ disease. Risk factors for CMV infection or disease include CMV seropositive recipients, mismatched and unrelated transplants, the use of T cell depletion agents, steroid therapy, graft-versus-host disease (GvHD), administration of CMV-positive blood products in seronegative recipients, among the other factors. Valganciclovir or ganciclovir remain the mainstream of CMV management in HSCT; however, due to adverse effects such as leukopenia and nephrotoxicity, some patients may exhibit intolerance to these medications or necessitate early discontinuation. Recent survey from the European Society for Blood and Marrow Transplantation (EBMT) highlight the inclusion of CMV immunoglobulin (CMVIG) as a therapeutic option for prophylaxis or pre-emptive interventions. **Objectives:** To assess the efficacy of CMVIG in managing early CMV reactivation among high-risk HSCT recipients. **Methods:** Between December 2022 and February 2024, 13 high-risk patients' post-prophylaxis with early detection of CMV reactivation were treated with CMVIG. All patients were managed with CMVIG as monotherapy. Clinical parameters such as viral load (IU/ml), medication side effects, and patient tolerance were systemically evaluated. **Results:** All patients experiencing CMV reactivation exhibited at least one-risk factor predisposing them to CMV reactivation, including D+/R+ serostatus, exposure to anti-thymocyte globulin (ATG), or received a matched unrelated donor (MUD) or haploidentical donor. All the patients were receiving Valacyclovir 500 mg b.i.d. for prophylaxis. The median age at transplantation was 53.8 years (range: 24-69). The median viremia level detected during treatment was 3175 IU/ml (n=6). A favourable response defined as achieving undetectable CMV viral load was achieved in all patients. None of the patients

required additional antiviral therapy following early detection of CMV viral load. The median duration to achieve viral response was 20 days. CMVIG was well tolerated among all patients, with no reported adverse reactions recorded. **Conclusion:** This single-center analysis demonstrates the clinical efficacy of CMVIG in the pre-emptive management of CMV reactivation, achieving complete remission in all patients without necessitating additional antiviral therapy. Given the inherent neutropenic status of such patients, the use of CMVIG represents a critical strategy to mitigate additional sources of myelotoxicity. Accordingly, CMVIG should be regarded as a valuable therapeutic tool for achieving early control of viral load and preventing further escalation of viremia and CMV-associated disease.

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