HAEMATOPOIETIC STEM CELL TRANSPLANTATION IN A PERSON WITH HIV AND RELAPSED ACUTE MYELOID LEUKAEMIA: A CASE REPORT

This abstract is being submitted for consideration for the trainee's case presentation breakfast

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Background/Purpose:

Introduction
People with HIV are at increased risk of developing cancer, including haematological malignancies. HIV infection is no longer considered a contraindication to haematopoietic stem cell transplantation (HSCT) in the context of effective antiretroviral therapy (ART).

Clinical Case
A 42-year-old man with HIV was diagnosed with acute myeloid leukaemia (AML) in October 2023 and underwent induction treatment with cytarabine and daunorubicin (7+3), followed by consolidation with cytarabine. Relapse occurred 3 months after achieving first complete remission. He proceeded to allogeneic HSCT in December 2024 from an unrelated donor with a *CCR5* delta-32 wild-type genotype. The conditioning regimen included busulfan, cyclophosphamide and anti-thymocyte globulin.

HIV was diagnosed in 2017 and virologic suppression was achieved with elvitegravir/cobicistat/emtricitabine/tenofovir alafenamide (Genvoya). In anticipation of chemotherapy-related drug interactions, ART was changed in November 2023 to emtricitabine/tenofovir alafenamide (Descovy) plus dolutegravir, and subsequently to dolutegravir/lamivudine (Dovato) in July 2024. His CD4 count prior to transplantation was 570 cells/μL, and he remained on ART with an undetectable viral load throughout the transplant course. The peri-transplant period was complicated by febrile neutropenia and *Clostridium difficile* colitis. Neutrophil engraftment occurred on day 15 and full donor chimerism was achieved by day 100. As of day 120 post-transplant, he remains in minimal residual disease-negative remission, with no complications from graft-versus-host disease.

Lessons
This case demonstrates the feasibility and safety of HSCT in individuals with well-

controlled HIV. The presentation will address key management considerations for people with HIV undergoing HSCT, such as adjusting ART when oral administration is not feasible, managing comorbidities and addressing drug-drug interactions. Given recent reports of HIV remission following transplantation from wild-type and heterozygous *CCR5* delta-32 donors, we now plan to characterise the HIV reservoir. This will support discussion with the patient about a potential treatment interruption as a test of cure.

Disclosure of Interest Statement:

JSYL receives honoraria for participation in Advisory Boards and Consultancy roles for ViiV Healthcare and Gilead Sciences, and an investigator-initiated research grant from Merck, Sharp and Dohme which is unrelated to this project. SRL receives honoraria for participation in scientific advisory boards for Gilead Sciences, Merck and Abbvie. She has received funding for an investigator initiated clinical trial from Gilead Sciences. DG's institution receives honoraria for participation in Advisory Boards for Gilead Sciences.

All other authors disclose no conflicts of interest.