A Tale of Two Stem Cell Transplantations in HIV+ Patients: Clues to Eradicate HIV

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Methods

Patient 1 (PV) and Patient 3 (PV) were transplanted in Hospital Gregorio Marañón, Madrid, Spain. Samples were shipped to irsicaixa (Barcelona), UMC Utrecht and UMC-Hamburg-Eppendorf and analyzed for reservoir and immunological studies.

- qVOA: 90 and 120 Million bulk CD4+ T-cells were used for the qVOA of patient 1 and 3 respectively.
- HIV DNA was quantified using ddPCR in: -CD4+ T-cells from peripheral blood leukapheresis -CD3+ T-cells from Bone Marrow

Findings

Herein we have compared two EpiStem patients with >20 months of follow up after transplantation. We observed how variations in the transplantation process results in important differences in reservoir size.

Figure 3. HIV reservoir after SCT

Conclusions

Allogeneic SCT with Peripheral Blood Progenitor Cells of an HIV-1+ matched sibling donor, with a faster achievement of full donor chimera and a chronic GVH disease resulted in a more drastic reduction of the latent reservoir down to undetectable levels. We hypothesize that the "graft versus HIV-1 reservoir effect" contributes to facilitate the clearance of the viral reservoir.

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