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Commentary

Awareness on HIV Cure and a Study on Acute HIV Infection

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DESCRIPTION

Research on HIV cure is a difficult and quickly changing area. The goal of current research, which ranges in design, is to learn how to accomplish a "cure," which is defined as either the total elimination of the replication-competent virus or the achievement of long-term HIV control without the use of Anti-Retroviral Therapy (ART). The International AIDS Society (IAS) recently released a description of the major research goals connected to HIV cures for the next five years. The existence of a latent viral reservoir poses a serious challenge to HIV cure efforts. After a number of investigations into possible causes of viral rebound, scientists have come to the conclusion that HIV can survive in a variety of cell types and tissue types.

Treatment for HIV remission will very certainly include targeting the viral reservoir in addition to host immunity. Prior research has demonstrated that initiating antiretroviral therapy (ART) during the acute phase of infection inhibits the development of the viral reservoir and may protect the immune system. Individuals who began Anti-Retroviral Therapy (ART) early after infection and may have reduced viral reservoirs may be good candidates for HIV cure trials. Since no biomarker has been found to date to predict viral rebound, Analytical Treatment Interruption (ATI) is required to investigate curative strategies.

Study participants may find it burdensome to take part in ATI trials because of the possibility of drug-resistant HIV reinfections as well as the increased risk of HIV transmission to sexual partners due to viral rebound following ATI. Additionally, participants lose out on the short-term benefits of ART's physical and mental therapy. Furthermore, it is doubtful that research participants will experience any direct medical advantages from the intervention, and trials involving ATI frequently include extensive and intrusive tissue and blood collection. This is important for the design of trials related to HIV cure and may influence their desire to take part in these studies.

Currently, the gold standard for the clinical management of HIV infection is lifelong treatment with antiretroviral medications. Antiretroviral therapy is not able to completely eradicate the virus, but it is successful in improving health and reducing the risk of HIV infection in the future. A viable remedy for cure might offer a long-term approach to control and prevention. Even with growing research and mounting scientific evidence, an HIV cure is still a long way off. In spite of these doubts, over half of the more than 400 Americans living with HIV surveyed in the US indicated that they would be open to taking part in various HIV treatment trials. People with HIV (PLHIV) who supported curative treatment when it became available especially appreciated de-stigmatization.

Meanwhile, research on animals and human subjects revealed that a "functional cure" for HIV infection might materialize in the upcoming years. Functional cure technique, as opposed to "sterilizing cure," seeks to effectively lower HIV viral load such that Anti-Retroviral Therapy (ART) is no longer required.

Although the phrase "functional cure" may refer to several approaches, it is currently widely used to describe achieving viral control without Anti-Retroviral Therapy(ART) while maintaining one's HIV infection status. The willingness of people living with HIV to participate in functional cure research or receive non-eradication cure treatment would be crucial, especially in light of the safety and efficacy of the most recent antiretroviral drug generations.

The choice made by PLHIV may depend on how they interpret the idea of a treatment and how it is presented. Many study participants in the United States did not view functional cure as an improvement over traditional ART. A person living with HIV may decide not to participate in functional cure research based on their experiences with ART. It is appropriate to investigate their attitude towards taking part in functional cure research given the growing number of papers highlighting the positive results of functional cure. Furthermore, it may be possible to determine the specific educational needs of recently diagnosed patients in the field of functional cure, which could facilitate the recruitment of subjects for clinical trials and enhance participant expectation management.

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