



INFORMATIONAL ALERT:

HTLV I/II and Eye Tissue Donation

February 8, 2023

The Policy and Position Review Subcommittee (PPRS) of the EBAA Medical Advisory Board has reassessed what is currently known about the risk of transmission of Human T-lymphotropic virus (HTLV) via ocular tissue donation. This update provides insight into the current issues surrounding eligibility of ocular tissue from HTLV seropositive donors.

Key Points about HTLV

1. HTLV* is a retrovirus that primarily affects T lymphocytes.¹
2. **HTLV-I** has an affinity for CD4 lymphocytes and can cause adult T-cell leukemia/lymphoma. **HTLV-II** predominantly affects CD8 lymphocytes and is generally thought to be non-pathogenic, although there are some disease associations that have been rarely reported, including myelopathy.¹
3. Studies of HTLV transmission have found that **a sufficient number of viable leukocytes must be present^{2,3} in a transplanted organ, tissue, or blood product to transmit the virus** (note: lymphocytes, monocytes, neutrophils, basophils, and eosinophils are types of leukocytes).
4. The Food and Drug Administration (FDA) considers whole blood, hematopoietic stem cells, semen, and pancreatic islet cells as relevant for HTLV transmission as these are "rich in viable leukocytes."
5. The FDA and EBAA **do not consider ocular tissue to be a risk in terms of HTLV transmission⁴⁻⁶** as these tissues are not rich in viable leukocytes. To date, there have been no known/reported cases of HTLV transmission via ocular tissue transplantation.
6. While organ procurement organizations (OPOs)/eye banks may test for and share results for HTLV serology (e.g., due to the possibility of sending tissue outside of the U.S., where HTLV testing may be required), **a reactive HTLV I/II Ab serology is not considered to be a contraindication** for ocular tissue transplantation in the U.S.
7. Human T-lymphotropic virus, human T-cell leukemia virus, and human T-cell leukemia/lymphoma virus, all refer to HTLV.

References:

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6. Policy, Position, & Research Subcommittee Review of HTLV-1 & HTLV-2 Serologic Testing. Eye Bank Association of America. June 4, 2010. Accessed at: <https://restoresight.org/wp-content/uploads/2023/02/Review-of-HTLV-1-and-HTLV-2-Serologic-Testing.pdf>