Zidovudine and interferon-alpha treatment induces a high response rate and reduces HTLV-١ proviral load and VEGF plasma levels in patients with adult T-cell leukemia from North East Iran

Author(s): Kchour, G (Kchour, Ghada); Makhou, NJ (Makhou, Nadine J.); Mahmoudi, M (Mahmoudi, Mahmoud); Kooshyar, MM (Kooshyar, Mohamad-Mehdi); Shirdel, A (Shirdel, Abbas); Rastin, M (Rastin, Maryam); Rafatpanah, H (Rafatpanah, Houshang); Tarhini, M (Tarhini, Mahdi); Zalloua, PA (Zalloua, Pierre A.); Hermine, O (Hermine, Olivier); Farid, R (Farid, Reza); Bazarbachi, A (Bazarbachi, Ali)

Source: LEUKEMIA & LYMPHOMA **Volume:** ٤٨ **Issue:** ٢ **Pages:** ٣٣٠-٣٣٦ **DOI:** ١٠,١٠٨٠/١٠٤٢٨١٩٠٦٠١٠٧١٧١٧
Published: FEB ٢٠٠٧

Times Cited: ١٤ (from Web of Science)

Cited References: ٢٩ [view related records] Citation Map

Abstract: Human T-cell lymphotropic virus type I (HTLV-I) associated adult T-cell leukemia/lymphoma (ATLL) is endemic in southern Japan, the Caribbean, intertropical Africa, and Brazil. Recently north east Iran, particularly the region of Mashhad, has been recognized as a new endemic region. ATLL is an aggressive T-cell lymphoproliferative disorder. Patients with ATLL have high plasma levels of VEGF that induce angiogenesis. Prognosis of ATLL remains poor because of immunosuppression and intrinsic resistance to chemotherapy. Important advances in the treatment of ATLL were reported with the combination of zidovudine (AZT) and interferon-alpha. We investigated the effect of AZT/IFN treatment on vascular endothelium growth factor (VEGF) plasma levels and HTLV-١ proviral load in ATLL patients from the region of Mashhad. We confirmed that AZT/IFN treatment induces a high response rate and prolonged survival with minimal side effects. We also confirmed that VEGF plasma levels and HTLV-I proviral load are higher in ATLL patients than in asymptomatic carriers. We finally showed that AZT/IFN treatment reduced both HTLV-I proviral load and importantly VEGF plasma levels, suggesting a potential antiangiogenic effect of this therapy. These results provide further evidence for the efficacy and the mechanism of action of AZT/IFN therapy for ATLL in a developing country.

Accession Number: WOS:٠٠٠٢٤٤٥٢٨٣٠٠٠١٩

Document Type: Article

Language: English

Author Keywords: zidovudine; interferon; viral load; HTLV-I; ATLL

KeyWords Plus: VIRUS TYPE-I; BLOOD-DONORS; LYMPHOMA; LEUKEMIA/LYMPHOMA; ANGIOGENESIS; COMBINATION; TYPE-١; PREVALENCE; ANTIBODIES; GROWTH

Reprint Address: Bazarbachi, A (reprint author), Amer Univ Beirut, Dept Internal Med, POB ١١٣-٦٠٤٤, Beirut, Lebanon.

Addresses:
١. Amer Univ Beirut, Dept Internal Med, Beirut, Lebanon
٢. Mashhad Univ Med Sci, Bu Ali Res Inst, Immunol Res Ctr, Mashhad, Iran
٣. Amer Univ Beirut, Dept Internal Med, Beirut, Lebanon
٤. Mashhad Univ Med Sci, Dept Internal Med, Mashhad, Iran
٥. CNRS, UMR ٨٦٠٣, Paris, France
٦. Hop Necker Enfants Malad, Dept Hematol, Paris, France

E-mail Address: bazarbac@aub.edu.lb

Publisher: TAYLOR & FRANCIS LTD, ٤ PARK SQUARE, MILTON PARK, ABINGDON OX١٤ ٤RN, OXON, ENGLAND

Web of Science Categories: Oncology; Hematology

Research Areas: Oncology; Hematology

IDS Number: ١٤٠SZ

ISSN: ١٠٤٢-٨١٩٤