

WEB OF SCIENCE™

Search

Return to Search Results

M

Full Text Options ▼



Save to Other File Formats

Add to Marked List

## Is Human T-Lymphotropic Virus Type 1 Infection Associated With Hearing Loss?

By: [Bakhshae, M](#) (Bakhshae, Mehdi)<sup>[1]</sup>; [Sorouri, A](#) (Sorouri, Amirhossein)<sup>[2]</sup>; [Shoeibi, A](#) (Shoeibi, Ali)<sup>[3]</sup>; [Boustani, R](#) (Boustani, Reza)<sup>[3]</sup>; [Golhasani-Keshtan, F](#) (Golhasani-Keshtan, Farideh)<sup>[5]</sup>; [Amali, A](#) (Amali, Amin)<sup>[6]</sup>; [Rajati, M](#) (Rajati, Mohsen)<sup>[4]</sup>

### LARYNGOSCOPE

Volume: 125 Issue: 4 Pages: 956-960

DOI: 10.1002/lary.24982

Published: APR 2015

[View Journal Information](#)

### Abstract

**Objectives/Hypothesis** Human T-lymphotropic virus type 1 (HTLV-1) infection is endemic in the northeast area of Iran. Although various neurological disturbances have been reported in HTLV-1 infection, possible audiovestibular involvement during this infection has not yet been studied.

**Study Design** Case control study.

**Methods** Sixty-eight cases in three groups including 24 HTLV-1-infected patients with HTLV-1-associated myelopathy/tropical spastic paraparesis (HAM/TSP) (group 1), 23 HTLV-1-infected cases without clinical presentation (group 2), and 21 normal individuals (group 3) entered our study. A complete history of hearing-related disorders and a profile of audiologic tests, including pure-tone audiometry (PTA) with high frequencies, speech reception threshold (SRT), and auditory brainstem response (ABR) were taken.

**Results** Subjective audiovestibular complaints of participants showed a significant difference among HAM/TSP patients and the two other groups regarding hearing loss and tinnitus, but not vertigo or aural fullness. Hearing evaluation by SRT and PTA in all frequencies showed a significant difference

between HAM/TSP patients (group 1) and the controls (group 3). The difference was also significant between asymptomatic cases (group 2) and the controls only in PTA frequencies above 4 kHz. Auditory brainstem-evoked potential did not show any significant differences among the groups regarding latency of I, III, and V waves and interwave differences.

Conclusions HTLV-1 infection, particularly in those with a clinical presentation, appears to accompany hearing loss. Based on the results of PTA and ABR tests, this study may suggest a cochlear source of hearing impairment rather than neural problems.

Level of Evidence 3b. Laryngoscope, 125:956-960, 2015

## Keywords

**Author Keywords:** Human T-lymphotropic virus type 1; HTLV-1-associated myelopathy and tropical spastic paraparesis; hearing; tinnitus; vertigo


**KeyWords Plus:** SPASTIC PARAPARESIS HAM/TSP; HTLV-I; COCHLEAR IMPLANTATION; MYELOPATHY; NORTHEAST; CHILDREN; PATIENT; IRAN

## Author Information

**Reprint Address:** Rajati, M (reprint author)

Mashhad Univ Med Sci, Ghaem Educ Hosp, Fac Med, Mashhad, Iran.

### Addresses:

- [ 1 ] Mashhad Univ Med Sci, Imam Reza Educ Hosp, Sinus & Surg Endoscop Res Ctr, Mashhad, Iran
- [ 2 ] Mashhad Univ Med Sci, Imam Reza Educ Hosp, Dept Otorhinolaryngol, Mashhad, Iran
- [ 3 ] Mashhad Univ Med Sci, Ghaem Educ Hosp, Dept Neurol, Mashhad, Iran
- [ 4 ] Mashhad Univ Med Sci, Ghaem Educ Hosp, Dept Otorhinolaryngol, Mashhad, Iran
- [ 5 ] Mashhad Univ Med Sci, Mashhad, Iran
-  [ 6 ] Univ Tehran Med Sci, Imam Khomeini Educ Complex Hosp, Valiasr Hosp, Otorhinolaryngol Res Ctr, Dept Otorhinolaryngol, Tehran, Iran

**E-mail Addresses:** [rajatim@mums.ac.ir](mailto:rajatim@mums.ac.ir)

## Publisher

WILEY-BLACKWELL, 111 RIVER ST, HOBOKEN 07030-5774, NJ USA

## Categories / Classification

**Research Areas:** Research & Experimental Medicine; Otorhinolaryngology

**Web of Science Categories:** Medicine, Research & Experimental; Otorhinolaryngology

## Document Information

**Document Type:** Article

**Language:** English

**Accession Number:** WOS:000351686900043

**PubMed ID:** 25354174

**ISSN:** 0023-852X

**eISSN:** 1531-4995

## Other Information

**IDS Number:** CE2YB

**Cited References in Web of Science Core Collection:** 31

**Times Cited in Web of Science Core Collection:** 0

[Full Text from Publisher](#)

---

[NCBI](#)

---

© 2015 THOMSON REUTERS

[TERMS OF USE](#)

[PRIVACY POLICY](#)

[FEEDBACK](#)