

論 文 要 旨

**(High prevalence of HTLV-1 carriers among the elderly population
in Kagoshima, a highly endemic area in Japan)**

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Background:

Japan is one of the world's highly endemic areas for human T-cell leukemia virus type 1 (HTLV-1), and it is known that the infection rate of HTLV-1 increases with age. The infection rate among the elderly has been estimated based on data from blood donors under the age of 65, and the actual number and rate of infection among the elderly are unknown.

Methods & Results:

Data of 26,090 preoperative HTLV-1 screening tests conducted at Kagoshima University Hospital from 2001 to 2020, including 2726 HTLV-1-positive patients, were used for calculating the decadal infection rates for the year of birth. Estimated infection rates by birth year and demographic tables were used to estimate the current number of infected people in Kagoshima. The estimated total numbers of people infected with HTLV-1 in Kagoshima prefecture were 139,436 in 2005 and 80,975 in 2019. The infection rate increased with age for both men and women, reaching 17.3% for women born before the 1920s. Next, we tried to clarify whether the increase in infection rates with age was due to post-school age infections. However, the age of birth with the greatest increase in infection rate after 10 years was women born in the 1970s, and the increase in infection rate was only 0.98%, which is not a statistically significant increase.

Conclusion:

The number of infected people in Kagoshima was >80,000 in 2019. No data were available in this study to point to the involvement of horizontal transmission after school age in the high infection rate among the elderly. The high infection rate among the elderly is thought to have been high even when they were infants.