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Seroprevalence of Parovirus B19 among HIV-1-Positives in Japan

Hitomi Taguchî¹, Takeshi Yamada¹, Takashi Takahashi¹, Mieko Gotoh¹,
Tetsuya Nakamura² and Aikichi Iwamoto¹,²*

¹Department of Infectious Diseases and ²Department of Infectious Diseases and
Applied Immunology, Institute of Medical Science, University of Tokyo,
Shirokanedai 4-6-1, Minato-ku, Tokyo 108-8639

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Human parovirus B19 (B19) is a causative agent of
erythema infectiosum (fifth disease). It infects erythroid
progenitor cells and thereby causes acute red cell aplasia in
patients under hematopoietic stress (1). As HIV-1 infected
patients are often placed under hematopoietic stress by factors
such as zidovudine therapy, we examined seroprevalence
among HIV-1 seropositives.

A total of 258 HIV-1 seropositives treated in our hospital
were examined for the presence of anti-B19 IgG and IgM
antibodies by using recombinant VP1 and VP2 coated
microplates for ELISA (Denka Seiken Co. Ltd., Tokyo) (2).
Hemophiliacs, 113 cases were acquired HIV-1 infection through contaminated blood products. The remaining 145
were probably infected via sexual routes.

The positive rate for anti-B19 IgG was 96% (108/113) for
the former group and 50% (73/145) for the latter group
(Table). The difference was significant (P < 0.001 in χ² square
test). The seroprevalence of B19 IgG in the non-hemophiliac
group, 50%, was almost the same as in the healthy population
in Japan (2). The anti-B19 IgG positives among the latter
group were tested for anti-B19 IgM, but all were negative.

Our result showing the higher seroprevalence of anti-B19
among hemophiliacs is in agreement with previous reports
(3, 4).

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<th>Patients' profile and seroprevalence of anti-B19 IgG</th>
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<tr>
<td>Patients</td>
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<tr>
<td>Age (year)</td>
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<td>Male/Female</td>
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<td>CD4 Counts (cells/μl)</td>
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<td>Hemoglobin (g/dl)</td>
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<td>Anti-B19 IgG positives (%)</td>
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*Mean value **Number of positives in total

*Corresponding author: Fax: +81-3-5449-5427, E-mail: aikichi@ims.u-tokyo.ac.jp