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POTENTIAL INFECTION OF ZIKA VIRUS IN THE TRAVELERS DETECTED AT THE POINT OF ENTRY CHINA BY A RETROSPECTIVE STUDY

Guo Hui¹, Jin Xia¹, Wang jing², Liu yang³, Guo wenxiu⁴, Tian feng⁵, Yang Yu², Zhang

Xiaolong² and Liu lijuan²

¹General Administration of Quality Supervision, Inspection and Quarantine of the PRC, China ²Chinese Academy of Inspection and Quarantine, China

³Jilin International Travel Healthcare Center, China

⁴Inner-Mongolia International Travel Healthcare Center, China

⁵Xinjiang International Travel Healthcare Center, China

Introduction: Zika virus (ZIKV) isn't arousing public attention until the outbreak on Yap Island of Micronesia since 2007 and the largest known outbreak before Brazil. In South America (SA) and Southeast of Asia (SEA), ZIKV has been circulating for a long time except for China. ZIKV isn't in the routine test list in the febrile sera collected at China Point of Entry (PoE) before 2016, we deduced that there might be existed ZIKV neglected or misdiagnosed.

Methodology: A total of 264 sera collected from the febrile travelers came from SEA and SA in 2014 that stocked at the Biobank of China PoE population were eligible for the study. The sera molecular and serological methods were carried out to detect the ZIKV, respectively. The ZIKV RNA was amplified using a real-time RT-PCR assay. Anti-ZIKV IgG was tested by indirect immunofluorescence assay (IFA). To further exclude the cross-reactivity with other flavivirus, conventional CPE-based micro neutralization (MN) test were used to determine the ZIKV specific antibody.

Results: The results showed although no ZIKV RNA found in the stocked sera, however, 5.3% of the samples were positive for anti-ZIKV IgG. The epidemiologic study showed ZIKV infection was related with age and gender significantly (p<0.05), affecting the relatively young and female population. The travelers who infected ZIKV were consistent with the reported endemic areas.

Conclusion: It's deduced that the international travelers might be as a sentinel for surveillance the ZIKV international transmission.

Recent Publications

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- 4. Zhu Hong, Li Hanping, Guo Hui, et al. (2004). Study on subtype and sequence of partial env gene of HIV-1 in people entering and exiting national frontiers 10(4):250-252.
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Biography

Guo Hui has his expertise in Travel Medicine. He served as Director of the Port of Hong Kong Port of the State Health Inspection and Quarantine Bureau; Director of the International Travel Health Center of Beijing Entry-Exit Inspection and Quarantine Bureau; Deputy Director of the Ministry of Industry and Communications, Director of the Department of Agricultural and Food Standards, Director of the International Cooperation Department. He is the Director of Public Health and Quarantine Supervision Department of AQSIQ.

Guoh@aqsiq.gov.cn