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Zika Virus Iceberg: Very Large

W. Sriwijitalai and V. Wiwanitkit

AJNR Am J Neuroradiol 2017, 38 (12) E102

doi: <https://doi.org/10.3174/ajnr.A5351>

<http://www.ajnr.org/content/38/12/E102>

This information is current as
of August 15, 2025.

Zika Virus Iceberg: Very Large

Aragao et al¹ reported an interesting finding in “Nonmicrocephalic Infants with Congenital Zika Syndrome Suspected Only after Neuroimaging Evaluation Compared with Those with Microcephaly at Birth and Postnatally” and raised an interesting question, “How Large Is the Zika Virus ‘Iceberg’?” In the report by Arago et al, the important observations are “Among 77 infants, 24.6% had congenital Zika syndrome (11.7% microcephaly at birth, 9.1% postnatal microcephaly, 3.9% without microcephaly).”¹ It is interesting that there are many children with congenital Zika virus syndrome with no microcephaly but abnormal neurologic findings from neuroimaging evaluation. This finding might imply that there may be many cases of Zika infection that present no external phenotypic abnormality but have hidden neurologic abnormalities. The cases with Zika virus infections are usually asymptomatic,² and the tip of iceberg phenomenon is usually mentioned.³

Regarding the magnitude of underdiagnosed “iceberg” Zika virus infection, one might assume that 0.96% of infected cases (3.9% from 24.6%) can be underdiagnosed if there is no neuroimaging evaluation. Based on a recent publication of an immuno-

logic study in an endemic area in Southeast Asia, the silent immunologic asymptomatic cases are 63%.⁴ This finding can imply that the Zika virus iceberg is very large, and it might be necessary to consider the role and cost-effectiveness of using laboratory tools, including neuroimaging, for assessment of any suspicious cases.

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W. Sriwijitalai

RVT Medical Center

Bangkok, Thailand

V. Wiwanitkit

Joseph Ayobabalola University

Lagos, Nigeria

<http://dx.doi.org/10.3174/ajnr.A5351>