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The Zika virus beyond microcephaly: will we face an increase in mental disorders?

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Dear editor:

On January 15, 2016, the United States' Centers for Disease Control and Prevention recommended pregnant women not to travel to areas where the Zika virus (ZIKV) was spreading. Only six months later, the ZIKV outbreak was already affecting more than 60 countries or territories [1],[2].

Serious birth defects, including microcephaly, are confirmed consequences of both symptomatic and asymptomatic ZIKV infection [1]. However, the consequences of ZIKV infection could go way beyond microcephaly [3].

Schizophrenia and other mental disorders have no single cause. The conditions are thought to arise from a combination of factors, including genetic predisposition and traumas later in life, such as sexual or physical abuse, abandonment or heavy drug use. Additionally, evidence has increased for years that mental disorders may be linked to exposure during pregnancy to viruses like rubella, herpes and influenza [4], and to parasites like Toxoplasma gondii.

ZIKV bear a resemblance to some pathogens that have been linked to the development of schizophrenia, autism and bipolar disorder [3],[4],[5]. At this time, it is uncertain to define the final consequences of ZIKV infection in the central nervous system development and the possible emergence of mental disorders. Some authors have argued that neuronal migration, cellular organization, and myelination could be impaired by central nervous system infection, leading to different conditions, including major and minor brain malformations, and neuropsychiatric syndromes including intellectual impairment and autism [3].

In order to be prepare and address this possible increasing of mental disorders due to ZIKV infection, the thoughtful study of longitudinal cohorts of newborns from epidemic areas, involving methodical assessment of neurodevelopmental milestones [3], should be a priority in the coming years. In the meantime, general clinicians and psychiatrists should be trained on the neural consequences of ZIKV infection, in order to address the challenges ahead.

Notes

From the editor
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Conflicts of interest
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