

The need for enhancing the message: Screening for Zika, STORCH, and other agents and co-infections should be considered and assessed

Dear Editor,

As has been addressed by Zambrano et al. in their recent paper,¹ the Zika virus (ZIKV) isolated from the cervical cytology specimens delivered from uterus/placenta unit. Although interesting, we were concerned regarding the fact that they claimed they had tested for herpes simplex viruses 1 and 2, cytomegalovirus, *Ureaplasma ureaticulum/parvum*, *Mycoplasma genitalium*, *Trichomonas vaginalis*, *Neisseria gonorrhea*, *Gardnerella vaginalis* and *Chlamydia trachomatis*, but never reported about them in results. These are significant pathogens that certainly should be assessed in cytological samples, in addition to their main finding of ZIKV.

In addition, it is necessary to consider the STORCH complex (syphilis, toxoplasmosis, rubella, cytomegalovirus, and herpes), as well as other related pathogens that would be relevant and endemic in areas overlapping with Zika, as differential diagnosis, but also as co-infections (such as, dengue, chikungunya, and parvovirus B19), also not assessed nor discussed further by Zambrano et al.¹ This is part of a necessary comprehensive approach to the pregnant women at risk or recovering from it.

The chronic placentitis due to STORCH agents would affect both first and third trimesters. The main changes are the chronic placental villous inflammation, villous edema, hyperplasia, and increase in Hofbauer cells; thus, they generate destruction in the villous architecture and placental immunological barrier. In fact, the evidence shows that STORCH causes a massive inflammatory response in both mother and fetus, leading to the neurological injury of the fetus.²


The evidence supports that some arbovirus co-infections such as dengue facilitate the entry of ZIKV through trophoblast cells.³ At endemic areas of the Americas, it would represent a major threat due to the co-circulation, clinical resemblance, and co-infection of the emerging arboviruses⁴ and also due to the increasing burden of emerging arboviral diseases in pregnant women and the fetus, including co-infections, as has been reported (dengue–chikungunya–Zika).⁵ Therefore, a comprehensive screening for STORCH, dengue, chikungunya, and parvovirus B19 should also be performed in suspected ZIKV infection.

Finally, still the message is to enhance and raise the awareness regarding the relevance of these strategies and comprehensive assessment and screening for multiple infectious agents that would be

related to the impact of pregnancy outcomes as well as to congenital disease and birth defects, as described above, leading then to a better understanding of the dynamics of epidemic, pathogeny, and a better decision-making in public health policies.

CONFLICT OF INTEREST

None.

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