

# Female-to-male sexual transmission of Zika virus infection

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Dear Editor,

We read the publication on 'The challenge given by Zika virus' with a great interest.<sup>1</sup> Rodriguez and Sebastian mentioned that 'No sexual transmission of Zika virus from infected women to their partners and from infected people without symptoms has been reported'.<sup>1</sup> Indeed, sexual transmission is a possible mode of Zika virus transmission.<sup>2</sup> Either homosexual or heterosexual contact might be the starting point of pathogenic virus transmission.<sup>3</sup> Regarding female-to-male sexual transmission of Zika virus, there are some reports on this problem. Davidson *et al* first reported a suspected female-to-male sexual transmission of Zika Virus from New York city in 2016.<sup>4</sup> This case report had several laboratory evidences showing the possibility of disease transmission.<sup>4</sup> After that, there are many reports on this issue.<sup>5</sup> As noted by Sherley and Ong, 'Unusually for a mosquito-borne virus, sexual spread has also been reported; with cases of male-to-female, female-to-male and male-to-male sexual transmission all now published in the scientific literature'.<sup>5</sup> According to the summative analysis by Moreira *et al* on sexual transmission of Zika virus, female-to-male transmission is detected in 3.7%.<sup>6</sup> Nevertheless, the common difficulty for diagnosis of a male-to-female or female-to-male sexual transmission of Zika virus is the ruling out of the chance of mosquito transmission, mosquito bite, of the two partners.<sup>7</sup> The diagnosis requires both

clinical epidemiological molecular laboratory investigations for final confirmation.<sup>7</sup>

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## REFERENCES

1. Vargas Rodriguez JS, Rodriguez V, Sebastian J. The challenge given by Zika virus. *Fam Med Community Health* 2018;6:208–10.
2. Joob B, Wiwanitkit V. Sexual transmission of Zika virus: what is the issue for awareness? *Int Marit Health* 2016;67.
3. Sookaromdee P, Wiwanitkit V. Homosexual and Zika virus infection: is it a new start of new problem for gay? *Indian J Sex Transm Dis AIDS* 2018;39:61–2.
4. Davidson A, Slavinski S, Komoto K, *et al*. Suspected female-to-male sexual transmission of zika virus. *MMWR Morb Mortal Wkly Rep* 2016;65:716–7.
5. Sherley M, Ong C-W. Sexual transmission of Zika Virus: a literature review. *Sex Health* 2018;15:183–99.
6. Moreira J, Peixoto TM, Siqueira AM, *et al*. Sexually acquired Zika Virus: a systematic review. *Clin Microbiol Infect* 2017;23:296–305.
7. Wiwanitkit S, Wiwanitkit V. Sexually transmitted Zika virus infection: a new tropical disease. *Asian Pac J Trop Dis* 2016;6:757–8.