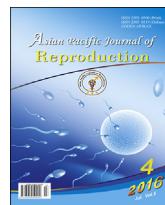




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### Zika virus and placenta

Beuy Joob<sup>1\*</sup>, Viroj Wiwanitkit<sup>2,3,4,5</sup>

<sup>1</sup>Sanitation 1 Medical Academic Center, Bangkok, Thailand

<sup>2</sup>Faculty of Medicine, University of Nis, Serbia

<sup>3</sup>Hainan Medical University, Haikou, China

<sup>4</sup>Joseph Ayobabalola University, Ikeji-Arakeji, Nigeria

<sup>5</sup>Dr DY Patil Medical University, Pune, India

Dear Editor,

Zika virus infection is a big public health problem at present. The infection in a pregnant woman might result in fetal defect. The issue on Zika virus and placenta is very interesting. As noted by Sadovsky *et al.*, the exact pathophysiological mechanism that the virus overcomes the placenta protective mechanism is very interesting [1]. Here, we would like to try to explain the pathophysiology by view of nanoanatomy. Basically, the Zika virus's size is about 40 nm which is considerable small. Similar to the case of HIV, the very small size of the virus can be an important factor that allows transmission of virus from mother to the fetus and further causes the problem in the fetus [2]. This can be a simple explanation for the occurrence of vertical transmission and observation on fetal defect in the pregnant infected with Zika virus. This can support the recent interesting finding that there

is no direct pathology and existence of virus in the placenta in the infected cases [3].

### Conflict of interest statement

We declare that we have no conflict of interest.

### References

- [1] Sadovsky Y, Clifton VL, Knöfler M. Editorial: ZIKA virus and placenta. *Placenta* 2016; **40**: A1.
- [2] Wiwanitkit V. Re: HIV transmission from mother to child: an aspect on the placenta barrier at the nano-level. *Aust NZ J Obstet Gynaecol* 2005; **45**(6): 539-540.
- [3] Sarno M, Sacramento GA, Khouri R, do Rosário MS, Costa F, Archanjo G, et al. Zika virus infection and stillbirths: a case of hydrops fetalis, hydranencephaly and fetal demise. *PLoS Negl Trop Dis* 2016; **10**(2): e0004517.

\*Corresponding author: Beuy Joob, Sanitation 1 Medical Academic Center, Bangkok, Thailand.

E-mail: [beuyjoob@hotmail.com](mailto:beuyjoob@hotmail.com)

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