Journal of the Formosan Medical Association (2014) **113**, 65

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.jfma-online.com

LETTER TO THE EDITOR

Novel Middle East respiratory syndrome coronavirus

Dear Editor,

The recent publication on novel Middle East respiratory syndrome coronavirus is very interesting.[1] Chan et al[1] summarized many important issues on this new emerging disease and mentioned possible human to human transmission. As observed, this new infection might be a highly similar infection to severe acute respiratory syndrome. A recent finding on its origin is very interesting because it was found to have potential lineage C β-coronaviruses in European bats.[2] The bat is a wild animal and how the virus reaches humans from bats is a topic for future investigation. The complex path by which the virus crosses species from animal to human has to be further studied.[3] An interesting consideration is the increased number of new emerging viral diseases that are classified as zoonotic diseases. The factors that stimulate the cross-species phenomenon should be carefully evaluated. The invasion of human population to the wild and the increased temperature due to global warming have to be explored for their actual effects.

Focusing on the present situation, the fear of a worldwide pandemic is an important issue. The possibility of the worldwide extension of the disease is presently being evaluated. Chan et al[4] noted that the new virus still has low transmissibility at this stage. However, this does not mean there will be no future problem. Because viruses constantly have new mutations, new problematic viruses can appear at any time. It is the role of the medical scientist to closely monitor and find new drugs and vaccines to correspond to this new infection. At this stage, the important preparation should include: (1) systematic data collection, with verification and analysis for using as database for preparation to fight the infection; (2) health education for medical personnel and the general population focusing on the natural history and prevention of the disease; (3) preparation of preventive devices and a prophylactic system; (4) a plan to correspond for a possible outbreak; (5) development of a simple and fast-to-use diagnostic tool; and (6) research to find new drugs and vaccines.

Conflicts of interest

The authors have no conflicts of interest relevant to this article.

References

1. Chan JF, Lau SK, Woo PC. The emerging novel Middle East respiratory syndrome coronavirus: the "knowns" and "unknowns". *J Formos Med Assoc* 2013;**112**:372–81.
2. Lau SK, Li KS, Tsang AK, Lam CS, Ahmed S, Chen H, et al. Genetic characterization of betacoronavirus lineage c viruses in bats reveals marked sequence divergence in the spike protein of *Pipistrellus* bat coronavirus HKU5 in Japanese Pipistrelle: implications for the origin of the novel Middle East respiratory syndrome coronavirus. *J Virol* 2013;**87**:8638–50.
3. Kindler E, Jónsdóttir HR, Muth D, Hamming OJ, Hartmann R, Rodriguez R, et al. Efficient replication of the novel human betacoronavirus EMC on primary human epithelium highlights its zoonotic potential. *M Bio* 2013;**4**:e00611–2.
4. Chan JF, Li KS, To KK, Cheng VC, Chen H, Yuen KY. Is the discovery of the novel human betacoronavirus 2c EMC/2012 (HCoV-EMC) the beginning of another SARS-like pandemic? *J Infect* 2012;**65**:477–89.

Viroj Wiwanitkit*
Hainan Medical University, Hainan, China

Faculty of Medicine, University of Niš, Niš, Serbia

Joseph Ayo Babalola University, Ikeji-Arakeji, Nigeria

*Wiwanitkit House, Bangkhae, Bangkok 10160, Thailand.
E-mail address: wviroj@yahoo.com

26 July 2013

0929-6646/$ - see front matter Copyright © 2013, Elsevier Taiwan LLC & Formosan Medical Association. All rights reserved.
http://dx.doi.org/10.1016/j.jfma.2013.08.009