

Emerging human trypanosomiasis in Southeast Asia: a coming new threat?

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The emerging infectious disease is usually problematic. There are many new emerging infectious diseases in new settings. At present, the consideration is usually on those infections. Focusing on Southeast Asia, it is considered an important tropical region of the world. There are many endemic tropical diseases. Of interest, the new emerging infections have also been reported in this area. The consideration on trypanosomiasis which has never been documented as endemic disease in Southeast Asia is presented and discussed in the present short review. Journal of Nature and Science, 1(1):e29, 2015.

trypanosomiasis | infectious disease | tropical disease

Introduction

The emerging infectious disease is usually problematic. There are many new emerging infectious diseases in new settings. At present, the consideration is usually on those infections. Focusing on Southeast Asia, it is considered an important tropical region of the world [1 – 3]. There are many endemic tropical diseases [1 – 3]. Of interest, the new emerging infections have also been reported in this area. The consideration on trypanosomiasis which has never been documented as endemic disease in Southeast Asia is presented and discussed in the present short review.

Trypanosomiasis in Thailand

The animal trypanosomiasis existed in Thailand. There were reported in cattle for many decades [4 – 7]. However, the interesting situation is on human trypanosomiasis. The existence of human trypanosomiasis in Thailand has been documented for many years. In the past, when Thailand still has good relationship with the Middle East, many Thais went to work as laborers in the Middle East and some returning Thai laborers carried some diseases such as leishmaniasis but there has never been case of trypanosomiasis in this situation. But there has ever been a case report of infantile infection by *Trypanosoma lewisi* without clear evidence on how this child got infection [8]. This case was reported in 2006. After that, in 2007, there was another case of *Trypanosoma lewisi*-like (Herpetosoma) infection in another sick infant [9]. The existence of the trypanosomiasis and trypanosomiasis like in Thailand draw a lot attention to the public health and medical scientists in Thailand area.

Trypanosomiasis in Cambodia, Laos and Myanmar

Existence of *trypanosoma* spp in rodent in Cambodia and Laos has been reported since 2007 [10]. However, there has never been report in human beings. Focusing on Myanmar, the data is extremely limited. Nevertheless, there is a recent report on ethnopharmacological study on plants from Myanmar [11].

Trypanosomiasis in Malaysia, Indonesia, the Philippines, Timor Leste and Brunei

The animal trypanosomiasis existed in Malayasia. There were reported in cattle and horse for many decades [12 – 14]. However, the interesting situation is on human trypanosomiasis. Until present, there is still no report in human beings. For Indonesia, the animal infection is also existed. The infection is usually seen in cattle [15]. Spreading of disease from Indonesia to Papua New

Guinea has ever been reported [16]. Until present, there is still no report in human beings in Indonesia. For the Philippines, the animal infection is also existed. The infection is also usually seen in cattle [17]. Similar to Malaysia and Indonesia, until present, there is still no report in human beings from the Philippines. For Brunei and Timor Leste, there has been no report of trypanosomiasis in both human beings and animal.

Trypanosomiasis in Singapore

For Singapore, there has been no report of trypanosomiasis in both human beings and animal. However, there are some reports on trypanosomiasis researches from Singapore [18 -19]. This implies the highly developed nature of Singapore as the center of medical science in Southeast Asia.

Trypanosomiasis in Southern part of China

Southern part of China is also considered tropical Southeast Asia. The main areas are Hainan and Yunnan. Of interest, there is a recent report on *Trypanosoma* spp from Hainan. The report is on “*Trypanosoma epinepheli* n. sp. (Kinetoplastida) from a farmed marine fish [20]”.

Conclusion

Although emerging human trypanosomiasis in Southeast Asia is not the present important problem. But the existence of problem in Thailand, without linkage to the disease transmission from endemic area, leads the consideration on the possibility of cross species zoonosis from local infected animals.

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