

## New Emerging Infections: Non-Natural and Fake Pathogens

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Dear Editor,

Emerging infections are usually new considerations in infectious medicine, and today there are many new, problematic infections. Good examples are bird flu, MERS, and the Ebola virus. New infections are usually proven to be the result of new human pathogens, and the outbreak of disease usually occurs without previous knowledge of them. Nevertheless, there are some interesting situations surrounding new emerging infections that are not considered among the present problems in medicine. The first kind of emerging infection is the non-natural emerging infection. This means that the pathogen has been proven to be a human pathogen in experimental studies, but there has never been a natural case report of it. A good example of a non-natural emerging infection is *Plasmodium schwetzi* infection (1, 2). *P. schwetzi* is a simian malarial parasite that infects chimpanzees. This species has been known for several decades as human pathogen. The proof of the infection comes to us by an experimental transmission study (1). However, there has never been a natural infection; hence, this disease is generally not classified as human malaria. The second kind of emerging infection is very interesting. Some infections have been reported to be a human infection, and the new pathogens are mentioned; however, it is later proven to be fake. A well-known instance of this is the case of the hepatitis Z virus infection. Indeed, there are many known

kinds of viral hepatitis. The hepatitis Z infection was first reported by Lettau in 1993 (3). The virus was claimed to have been first discovered "in California amongst cult members preferring to eat raw liver" (3). However, it was later mentioned that the story was only a joke, and there had never been any hepatitis Z virus (see <http://www.independent.co.uk/life-style/health-and-families/hepatitis-z-does-not-exist-correction-2061890.html>). Nevertheless, there are also groups of new pathogens that pose a high risk for human infection. Practitioners should update their knowledge on any new pathogen. For diseases associated with the trends of emerging infections in human beings, such as *P. inui* infection (4) or new influenza viruses, a close follow-up is suggested.

### References

1. Rodhain J, Dellaert R. [Studies on *Plasmodium schwetzi* E. Brumpt. III. *Plasmodium schwetzi* infection in humans]. *Ann Soc Belg Med Trop (1920)*. 1955;35(6):757-75. [PubMed: 13314330]
2. Contacos PG, Coatney GR, Orihel TC, Collins WE, Chin W, Jeter MH. Transmission of *Plasmodium schwetzi* from the chimpanzee to man by mosquito bite. *Am J Trop Med Hyg*. 1970;19(2):190-5. [PubMed: 5443069]
3. Lettau LA. Alphabet now complete. NIH discovers hepatitis Z virus. *Ann Intern Med*. 1993;119(2):167. [PubMed: 8512168]
4. Nimri LF, Lanners HN. Glomerulonephropathies in *Plasmodium inui*-infected rhesus monkey: a primate model and possible applications for human quartan malaria. *Parasitology*. 2014;1-8. doi: 10.1017/S0031182014000900. [PubMed: 25023338]