

The Importance of Medical Knowledge About Q Fever in the Context of Timely Diagnosis and Treatment and the Use of the One Health Approach in Combating This and Other Neglected Zoonotic Diseases [Letter]

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Dear editor

I enthusiastically read the article by Niu et al,¹ entitled “A Rare Q-Fever Infection Diagnosed Using Metagenomic Next-Generation Sequencing in a Liver Transplantation Patient: A Case Report and Literature Review”. In this case report, it is important to emphasize that the knowledge of medical professionals about Q fever and the use of metagenomic next-generation sequencing (mNGS) as a diagnostic tool enabled the patient to have a favorable outcome.¹ Specifically, mNGS has been instrumental in the rapid identification of *Coxiella burnetii*, the pathogen that causes Q fever, in clinical samples and is strongly recommended in suspected cases.²

Unfortunately, in several countries, Q fever remains a neglected zoonotic disease, underreported, and unknown to many medical professionals. This impacts underdiagnosis, lack of timely treatment, and the risk of patients developing the disease in the chronic phase, which can progress to a serious condition and even death. Furthermore, misdiagnosis and treatment can contribute to unnecessary increases in costs in the public health system.³ In this context, Q fever needs to be widely disseminated among medical professionals, and cases of patients who were successfully diagnosed and treated need to be highlighted, such as those reported by Xu et al,² Wang et al,⁴ and Yao et al,⁵ who also used mNGS as a diagnostic tool.

In the article by Niu et al,¹ in addition to the reported case, a literature review on the Q fever was conducted. However, the importance of using the One Health approach as a means of controlling and preventing this zoonosis was not described. Therefore, I would like to add relevant information related to this approach in combating Q fever and other neglected zoonotic diseases.

The One Health approach is based on holistic thinking about the interface between humans, animals, and the environment, aiming to promote the health and sustainable development of these sectors through multisectoral and interdisciplinary collaboration at the local, national, and global levels. In this context, neglected zoonotic diseases, which pose a challenge to global surveillance, control, and prevention measures, are considered a priority for the One Health approach.⁶

Therefore, coordinated and collaborative strategies to combat Q fever, as well as other zoonoses, must incorporate the human, animal, and environmental domains within the One Health framework. These strategies include improving human surveillance, implementing animal surveillance, and ensuring data sharing and intelligence exchange between the public health and veterinary sectors. Furthermore, it is essential to improve communication, develop the proactivity of people involved in managing Q fever, strengthen laboratory infrastructure, improve veterinary control measures, promote human and animal serosurveillance, and conduct environmental monitoring and vaccination.⁷

Finally, increased knowledge among medical professionals about Q fever, allowing for its timely diagnosis and treatment, in addition to the use of the One Health approach as a way of controlling and preventing this zoonosis, tend to prevent the occurrence of serious cases and outbreaks, considerably reducing its impacts on public health.⁸

Disclosure

The author reports no conflicts of interest in this communication.

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