

# A Response to the Article “Seroprevalence and Associated Risk Factors of Brucellosis Among Human Population in Duhok City, Iraq” [Letter]

Risqa Novita<sup>1,2,\*</sup>, Dhani Prakoso<sup>3,\*</sup>

<sup>1</sup>Research Center for Pharmaceutical Ingredients and Traditional Medicine, National Research and Innovation Agency, Cibinong, West Java, Indonesia;

<sup>2</sup>Primateology Study Program, Graduate School of IPB University, Bogor, West Java, Indonesia; <sup>3</sup>Professor Nidom Foundation, Surabaya, Indonesia

\*These authors contributed equally to this work

Correspondence: Risqa Novita, Research Center for Pharmaceutical Ingredients and Traditional Medicine, Research Organization for Health, National Research and Innovation Agency, Genomic Building, Cibinong Science Center, Jl. Raya Bogor No. 490, Cibinong, West Java, Indonesia, Email risq001@brin.go.id; my\_risqa@apps.ipb.ac.id

## Dear editor

We give high impressions to the author for his publication titled “Seroprevalence and Associated Risk Factors of Brucellosis Among Human Population in Duhok City, Iraq” in the Journal *Infection and Drug Resistance*. 2023;16:2805–2811.<sup>1</sup> He shared a great article because it revealed human brucellosis symptoms which are not widely known and a low mortality rate. Brucellosis is a neglected zoonotic disease, found mainly in developing countries, and an important zoonotic disease after rabies.<sup>2</sup> Four *Brucella* species are pathogenic to humans, *Brucella melitensis*, *Brucella abortus*, *Brucella suis*, and *Brucella canis*. *Brucella melitensis* is known to be the most virulent to humans.<sup>3</sup> Since brucellosis is a zoonotic disease and this research only found *B. melitensis* and *B. abortus* in their samples, it would be much better if the data regarding the brucellosis status of the animals living near the human-positive cases were added. Therefore, the data in this article are more comprehensive and, in turn, preventive measures can be taken.

This research is similar to our research (under review) which also used Rose Bengal Test (RBT) for the first screening, but then we used Complement Fixation Test (CFT) for confirmatory of the positive RBT samples. RBT is the best screening test for human and animal brucellosis. The RBT has higher sensitivity compared to the CFT, so the positive RBT sample might have a negative CFT test. Based on our research (under review), brucellosis seroprevalence of the respondents using RBT was 3.3%, but when tested using CFT, the seroprevalence become 0%. This result was also supported by Ekiri, 2020, where RBT positive test indicated that the patient was in the sub-acute infection phase (6–12 months of infection), while a chronic infection phase usually showed RBT negative. The majority of *Brucella* infections were chronic infections.<sup>4,5</sup> Therefore, the World Health Organization (WHO) suggests that the CFT test is conducted for confirmation of the brucellosis.<sup>6</sup> For confirmation of the results in this research, it would be more complete if the CFT test is added, that way the actual respondent status of the brucellosis is known and the respondent receives proper treatment.

## Acknowledgments

We would like to acknowledge Khalid HM as the author of the discussed study for his amazing works, and we also would like to acknowledge Dr. Sofa Fajriah for her advice throughout the publication.

## Disclosure

The authors report no conflicts of interest in this communication.

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