

## Correspondence

### Prevalence of IgG antibodies against *Toxoplasma gondii* among Syrian females of childbearing age

To the Editor

Despite the prevalence of seronegativity against *Toxoplasma gondii* (*T. gondii*) (73.3%) is apparently high in Barah's study,<sup>1</sup> I presume that that is not the actual prevalence. This is partially attributed to some limitations addressed by Barah.<sup>1</sup> It is well-known that the precision of any study data depends among other factors, upon the response rate of the participants. The response rate in Barah's study<sup>1</sup> was low (27.65%). I presume that the reluctance of the female participants to take part in the Barah's study<sup>1</sup> is partially related to the relatively painful procedure of venipuncture blood sampling. Though *T. gondii* infection in humans is routinely assessed by serological means involving serum samples, the detection of anti-*T. gondii* immunoglobulin (IgG) is also possible using a non-invasive methodology employing saliva samples. In a Swiss study,<sup>2</sup> sera and saliva of 201 healthy volunteers were investigated for the presence of anti-*T. gondii* IgG antibodies by immunoblotting. The sera of 59 (29.4%) individuals showed IgG antibodies against *T. gondii* by enzyme-linked immunosorbent assay (ELISA), Vidas, and immunoblotting; 58 (98.3%) of these were also positive for anti-*T. gondii* IgG in the saliva immunoblot. The saliva immunoblot test exhibits a specificity of 100% and a sensitivity of 98.5%. Thus, saliva could be used as an alternative, non-invasive means for the detection of specific anti-*T. gondii* IgG in humans. I presume that the substitution of serum samples by saliva could increase the response rate among participants and might alter the prevalence of seropositivity and seronegativity against *T. gondii*. Nevertheless, it is essential to consider toxoplasmosis a significant health threat in Syria. Suitable preventive and therapeutic measures are needed to hamper the spread of this infection in the community.

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Reply from the Author

I read with interest the valuable comments by Prof Al-Mendalawi related to our study (Prevalence of IgG antibodies against *Toxoplasma gondii* among Syrian females of childbearing age).<sup>1</sup> In response to his comments, I would like to present briefly the following notes on his short comment.

We agree with Prof Al-Mendalawi that the response rate of the participants in this study was low and we agree somehow with the reasons behind that. However, it was not expected that higher response rate will change the outcome of our study. Our results agreed with the regional and universal trend for toxoplasmosis infection ratio, where a quarter to one third of various populations showed immunity.<sup>3,4</sup> In fact, our results also agreed with the quoted reference used by Prof Al-Mendalawi, where almost only 30% of individuals showed IgG antibodies against *T. gondii* by various methods applied on both sera and saliva samples.<sup>2</sup>

Our team is currently working on a project for comparing the 2 methods for the detection of IgG antibodies against *T. gondii* using routinely serological means involving serum samples and non-invasive methodology employing saliva samples, in a similar pattern of the study conducted by Stroehle et al<sup>2</sup> mentioned by Prof Al-Mendalawi.<sup>2</sup> However, until this moment, detection of IgG antibodies against *T. gondii* in sera samples remains the standard method that is used universally.

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### References

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