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Prevalence of malaria in Arusha Region in the northern Tanzania: Comment

Hinpetch Daungsupawong[1], Viroj Wiwanitkit[2]

[1]Private Academic Consultant, Phonhong, Lao People's Democratic Republic
[2]Department of Research Analytics, Saveetha Dental College and Hospitals, Saveetha Institute of Medical and Technical Sciences Saveetha University India

Dear Editor,

We would like to comment on "Prevalence of malaria in Arusha Region in the northern Tanzania" [1]. The purpose of the study was to determine how common malaria infections were among the local population in the Karatu District of the Arusha Region. Phase I of the study involved the collection of blood samples from 101 participants who underwent screening. The samples were subjected to testing utilizing a rapid diagnostic test (mRDT). The findings revealed a low mRDT detection rate of malaria infections (2.0%); however, phase II molecular testing (RT-PCR) detected more cases, suggesting a higher prevalence rate (7.9%). Additionally, the investigation showed that various Plasmodium parasite species were responsible for the illnesses, and that co-infections were present in some of the patients.

The study's shortcomings include its small sample size of 101 participants, which could not be a reliable indicator of the prevalence of malaria in the Karatu District as a whole. Furthermore, since molecular testing in phase II found more instances of malaria, the use of mRDT alone in phase I may have underestimated the true prevalence of infections in the population. The inclusion of a control group for comparison and follow-up testing to track the development of infections and treatment results would have also been beneficial to the study.

Potential avenues for further research in this field could involve increasing the sample size to a larger, more representative population in the Karatu District and implementing more advanced diagnostic instruments to precisely identify cases of malaria. Additionally, longitudinal studies could be carried out to monitor the dynamics of malaria transmission in the area over time and evaluate the impact of interventions like insecticide-treated bed nets and mass medicine administration on the disease burden. Furthermore, working together with community stakeholders and local health authorities could support the implementation of focused community-based malaria preventive and control initiatives.

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REFERENCES

1. Kołodziej D, Ammi HZ, Richert W, et al. Prevalence of malaria in Arusha Region in the northern Tanzania. Int Marit Health. 2024; 75(2): 103–108, doi: 10.5603/imh.100440, indexed in Pubmed: 38949218.

Hinpetch Daungsupawong, Private Academic Consultant, Phonhong, Lao People's Democratic Republic, e-mail: hinpetchdaung@gmail.com

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