(*1*) and our study does not support the notion that *P. falciparum* infections elicit functional humoral responses against COVID-19.

This work was supported by the National Institute of Allergy and Infectious Diseases (R21AI167242 to W.P.O. and S.M.T. and F32AI149950 to C.F.M.)

References

1. Manning J, Zaidi I, Lon C, Rosas LA, Park J-K, Ponce A, et al. SARS-CoV-2 cross-reactivity in prepandemic serum from rural malaria-infected persons, Cambodia. Emerg Infect Dis. 2022;28:440–4. https://doi.org/10.3201/eid2802.211725
2. Sumner KM, Mangeni JN, Obala AA, Freedman E, Abel L, Meshnick SR, et al. Impact of asymptomatic *Plasmodium falciparum* infection on the risk of subsequent symptomatic malaria in a longitudinal cohort in Kenya. eLife. 2021;10:e68812. https://doi.org/10.7554/eLife.68812
3. Chia WN, Zhu F, Ong SWX, Young BE, Fong S-W, Le Bert N, et al. Dynamics of SARS-CoV-2 neutralising antibody responses and duration of immunity: a longitudinal study. Lancet Microbe. 2021;2:e240–9. https://doi.org/10.1016/S2666-5247(21)00025-2
4. Tan CW, Chia WN, Qin X, Liu P, Chen MIC, Tiu C, et al. A SARS-CoV-2 surrogate virus neutralization test based on antibody-mediated blockage of ACE2-spike protein-protein interaction. Nat Biotechnol. 2020;38:1073–8. https://doi.org/10.1038/s41587-020-0631-z
5. Addetia A, Crawford KHD, Dingens A, Zhu H, Roychoudhury P, Huang M-L, et al. Neutralizing antibodies correlate with protection from SARS-CoV-2 in humans during a fishery vessel outbreak with a high attack rate. J Clin Microbiol. 2020;58:e02107–20. https://doi.org/10.1128/JCM.02107-20

Address for correspondence: Christine Markwalter, Duke Global Health Institute, 310 Trent Dr, Durham, NC, 27707, USA; email: christine.markwalter@duke.edu

Melioidosis in Children, Brazil, 1989–2019

Bijayini Behera, Anjuna Radhakrishnan, Sonali Mohapatra, Baijayantimala Mishra

Author affiliation: All India Institute of Medical Sciences, Bhubaneswar, India

DOI: https://doi.org/10.3201/eid2805.211473

To the Editor: We read with great interest the article by Lima et al. (*1*), in which the authors have discussed 20 confirmed or suspected melioidosis cases in children over a period of 30 years, concluding that childhood melioidosis is more severe in Brazil. This conclusion seems far-fetched based on findings described in the article, although the authors state that the high death rate and clinical severity might have been attributed to underreporting of mild cases,

Melioidosis is not a notifiable disease in India. Even so, from a single tertiary-care teaching hospital at Odisha, we have reported >100 cases of culture-confirmed cases during 2016–2021 (*2*–*4*), of which 10 cases were in the pediatric population (8 cases of superficial pyogenic infections in otherwise healthy children and 2 cases of septicemic melioidosis). All case-patients survived except 1 of the 2 with septicemic melioidosis, an 11-year-old boy who had systemic lupus erythematosus and died despite adequate intensive therapy. The second septicemic case was a 3-year-old girl with underlying acute lymphoblastic leukemia; she was treated with intravenous meropenem for 10 days and was discharged with a regimen of oral cotrimoxazole for 12 weeks.

Clinical severity of melioidosis is predominantly a function of host immunity (*5*). At a more pragmatic level, we would like to emphasize that, in melioidosis-endemic regions, most immunocompetent children with melioidosis experience localized infections and have better clinical outcomes, whereas in children with risk factors such as immunosuppression and childhood malignancies, the clinical course may be sudden and severe. In our view, frequent environmental exposures may not entirely explain the severity of childhood melioidosis. Lima et al. should have provided additional evidence to support their conclusion that childhood melioidosis is more severe in the population in Brazil.

About the Author

Dr. Behera is an additional professor in the department of microbiology at All India Institute of Medical Sciences, Bhubaneswar, India. Her primary research interests are melioidosis, rickettsial diseases, and antimicrobial resistance.

References

1. Lima RXR, Rolim DB. Melioidosis in children, Brazil, 1989–2019. Emerg Infect Dis. 2021;27:1705–8. https://doi.org/10.3201/eid2706.200154
2. Behera B, Mohanty S, Mahapatra A, Hallur VK, Mishra B, Dey A, et al. Melioidosis in Odisha: a clinico-microbiological and epidemiological description of culture-confirmed cases

over a 2-year period. Indian J Med Microbiol. 2019;37:430–2. https://doi.org/10.4103/ijmm.IJMM_19_367
3. Radhakrishnan A, Behera B, Mishra B, Mohapatra PR, Kumar R, Singh AK. Clinico-microbiological description and evaluation of rapid lateral flow immunoassay and PCR for detection of *Burkholderia pseudomallei* from patients hospitalized with sepsis and pneumonia: a twenty-one months study from Odisha, India. Acta Trop. 2021;221:105994. https://doi.org/10.1016/j.actatropica.2021.105994
4. Purushotham P, Mohanty S, Chappity P, Mishra TS, Mahapatra A. Identification and characterization of *Burkholderia pseudomallei* from localized pyogenic infections in eastern India: a clinico-microbiological study. Am J Trop Med Hyg. 2021;104:1252–9. https://doi.org/10.4269/ajtmh.20-1386
5. Webb JR, Sarovich DS, Price EP, Ward LM, Mayo M, Currie BJ. *Burkholderia pseudomallei* lipopolysaccharide genotype does not correlate with severity or outcome in melioidosis: host risk factors remain the critical determinant. Open Forum Infect Dis. 2019;6:ofz091. https://doi.org/10.1093/ofid/ofz091

Address for correspondence: Bijayini Behera, AIIMS Bhubaneswar, Microbiology, 2nd Fl, Academic block, All India institute of Medical Sciences, Bhubaneswar, Bhubaneswar, Odisha 751019 India; email: drbinny2004@gmail.com

In Response: We would like to respectfully clarify a few points in the comments by Behera et al. (*1*). We did not conclude that the severity of melioidosis in children in Brazil is greater than in other countries; we discussed it as a possibility (*2*). We also discussed that mild to moderate cases are the most prevalent forms in children and that they are underdiagnosed. However, it is possible that the severity of childhood melioidosis in Brazil may be like that in other melioidosis-endemic countries. By emphasizing disease severity, we aimed to draw attention to the detection of melioidosis in children, which can result in high death rates (*3*). Because the severe cases in our study occurred in healthy children, we did not discuss host immunity; this fact does not invalidate the role of immunity in melioidosis pathophysiology. Our objective was the same as that of Wiersinga et al. (*4*).

We described the intense environmental exposure of this age group in our region and recognized the importance of the environment to melioidosis epidemiology. We do not claim that exposure is the only explanation for disease severity, nor that it is a direct cause of severity. Furthermore, we acknowledge that human behavior and habits vary in different regions of the world; for example, tropical areas in which children play outdoors have a higher risk for melioidosis. Currie et al. have recommended additional studies (*5*).

We observed diverse genetic, cultural, and economic factors in the countries where melioidosis is found, whether it is well recognized or not. All of these factors could influence the distribution and severity of the disease (*6*). At this time, we believe a descriptive study can draw attention to melioidosis in tropical regions, such as Brazil and Latin American countries. The goal is to improve detection and reduce deaths from melioidosis in all parts of the world.

Rachel Ximenes Ribeiro Lima, Dionne Bezerra Rolim

Author affiliations: Municipal Department of Health, Fortaleza, Brazil (R.X.R. Lima); University of Fortaleza Medical School (R.X.R. Lima, D.B. Rolim); Ceará State University, Fortaleza (D.B. Rolim)

DOI: https://doi.org/10.3201/eid2805.220479

References

1. Behera B, Radhakrishnan A, Mohapatra S, Mishra B. Melioidosis in children, Brazil, 1989–2019. Emerg Infect Dis. 2022 Mar 28 [Epub ahead of print]. https://doi.org/10.3201/eid2805.211473
2. Lima RXR, Rolim DB. Melioidosis in children, Brazil, 1989–2019. Emerg Infect Dis. 2021;27:1705–8. https://doi.org/10.3201/eid2706.200154
3. Wiersinga WJ, Currie BJ, Peacock SJ. Melioidosis.. N Engl J Med. 2012;367:1035–44. https://doi.org/10.1056/NEJMra1204699
4. Wiersinga WJ, Virk HS, Torres AG, Currie BJ, Peacock SJ, Dance DAB, et al. Melioidosis. Nat Rev Dis Primers. 2018;4:17107. https://doi.org/10.1038/nrdp.2017.107
5. Currie BJ, Jacups SP. Intensity of rainfall and severity of melioidosis, Australia. Emerg Infect Dis. 2003;9:1538–42. https://doi.org/10.3201/eid0912.020750
6. Limmathurotsakul D, Golding N, Dance DAB, Messina JP, Pigott DM, Moyes CL, et al. Predicted global distribution of Burkholderia pseudomallei and burden of melioidosis. Nat Microbiol. 2016;1:15008 https://doi.org/10.1038/nmicrobiol.2015.8

Address for correspondence: Rachel Lima, Universidade de Fortaleza, Washington Soares Av, 1321, Fortaleza 60811-905 Brazil; email: quel0505@gmail.com