Gathering unintended baggage on the way: Malaria, scabies and Lyme co-infection in an asylum-seeker

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Background

Asylum seekers who make dangerous journeys to Europe face many hazards, including exposure to communicable disease.

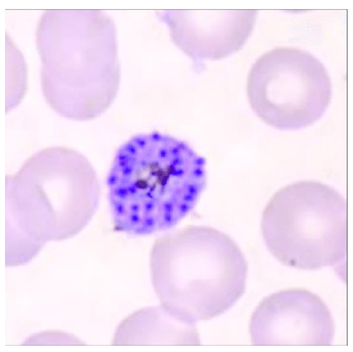
Method

We present a case of a foreign national who presented with malaria, Lyme disease and scabies co-infection.

Results

A 21 year male, was admitted with one week history of headache, myalgia, fever, vomiting for two days, as well as itching. He was an asylum-seeker from South-Central Asia and had recently travelled into Ireland via France; traversing through jungles, and had been exposed to mosquito and insect bites during his journey. He also reported receiving treatment for malaria in France six weeks prior.

He tested positive for Plasmodium vivax malaria, and schizonts were noted on blood film. IV Artesunate was commenced to treat severe malaria.



Scabies lesions were noted on his skin, and he was treated with Ivermectin for scabies during his admission. He responded well to malaria and scabies treatment. He was planned to receive Plasmodium vivax hypnozoite (liver phase) eradication treatment as an out-patient with Primaquine, pending G6PD results. On the day of his discharge, his screening test for Borrelia *burgdorferi* IgG report also came back as positive awaiting confirmation.

Borrelia burgdoferi IgG :

POSITIVE

The B burgdorferi IgG initial screening assay is reactive. Please refer to the BIA statement on

***Borrelia* IgM (Immunoblot)**

IgM to *Borrelia* P41 antigen	POSITIVE
IgM to *Borrelia* P39 antigen	Negative
IgM to *Borrelia* OspC antigen	Negative
IgM to *Borrelia* Osp17 antigen	POSITIVE
IgM to *Borrelia* VlsE antigen	Negative

Prior to the planned clinic follow up, he re-presented with another relapse of Plasmodium vivax malaria. He was readmitted and completed malaria treatment along with Primaquine eradication. The confirmatory Lyme disease results were also positive for which he received four days of intravenous Ceftriaxone and was then discharged on oral Doxycycline to complete the therapy. He was clinically well on subsequent follow up.

In this case, the patient possibly contracted malaria in South-Central Asia, and most likely contracted Lyme disease on his way to Ireland, while a scabies outbreak was ongoing in the asylum centre locally at the time he arrived.

Malaria and *B. Burgdorferi* co-infection is rare. A 2017 Clinical Case Report published in the Wiley Online Library was the first ever reported case of malaria and *B. Burgdorferi* co-infection(1). Prior to this, the only documented cases in the literature were of co-infection with *B. recurrentis*. This case of malaria, lyme and scabies co-infection underscores the infectious hazards asylum seekers expose themselves to and also reminds the clinicians of the multiple co-infection considerations in such persons.

References

1 Neves N, Silva-Pinto A, Rocha H, Silva S, Pereira E, Sarmento A, Santos L. *Plasmodium* spp. and *Borrelia burgdorferi* co-infection associated with antiphospholipid syndrome in a returned traveler: a case report. Clin Case Rep. 2017 Mar 2;5(4):471-476. doi: 10.1002/ccr3.871. PMID: 28396771; PMCID: PMC5378865.

2. Hematological aspects in malaria - Scientific Figure on ResearchGate. Available from: https://www.researchgate.net/figure/Thin-smear-Plasmodium-vivax-schizont-under-oil-immersion-1000_fig2_276019615 [accessed 13 May, 2024]

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