

Mysteries on the Menu: A Traveller's Health Misadventure

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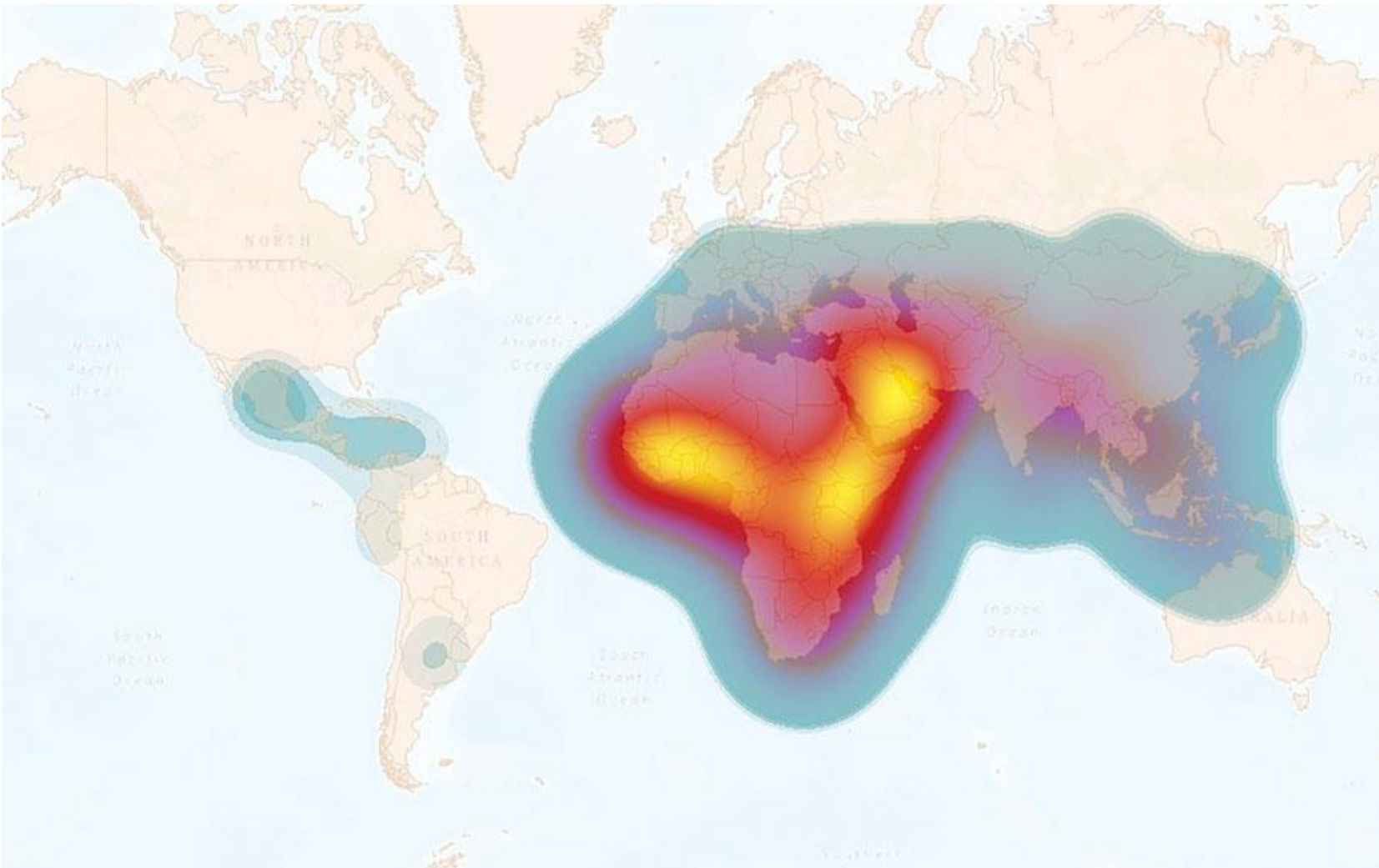
Background

Brucellosis is a zoonotic infection, acquired by consuming unpasteurized dairy/handling animals infected with bacteria from the *Brucella genus* ¹. Although eradicated from Irish cattle in 2009 ², brucellosis occurs in the “Mediterranean, Middle East, Central Asia, China, Indian subcontinent, Sub-Saharan Africa, Mexico and Central and South America”. ³ In Punjab, India, a study showed 15.1% of large ruminants were seropositive for *Brucella*, and one-third of dairy farms had at least one infected animal ⁴.



Global incidence

World Health Organisation heat map of global annual incidence of human brucellosis estimated per 1 million population at risk. The heat scale shows high risk to low risk; yellow (estimated;4,000 cases) to blue (estimated:1 case).



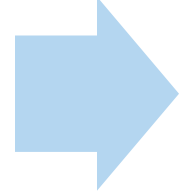
Case Report

A 32-year-old male presented to the hospital with over four months of fevers, myalgia, headaches, and 5kg weight loss, after travelling to India. His symptoms persisted despite receiving empiric antibiotics. He handled buffaloes and drank unpasteurised goat milk in India. Clinical examination was normal, apart from tachycardia(110bpm).

Discussion

- Brucellosis is rare in Ireland; five cases were reported in 2023, and one case was reported in both 2024 and 2022⁵. The 2022 case, and two 2023 cases were associated with international travel.

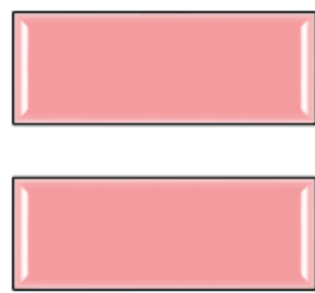
Average onset
2-4 weeks



Incubation: 5
days to 6
months ⁽⁶⁾

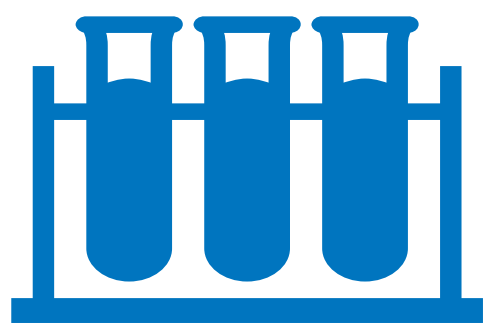
- Symptoms include fever, malaise, arthralgias, hepatosplenomegaly, or lymphadenopathy. Severe, multi-systematic complications may occur, including arthritis, sacroiliitis, spondylitis, central nervous system disorders, epididymo-orchitis, endocarditis, hepatitis, respiratory disorders, and rashes.⁷

Definite
diagnosis?

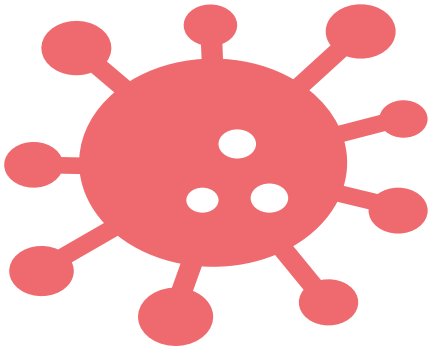


Culture
brucella

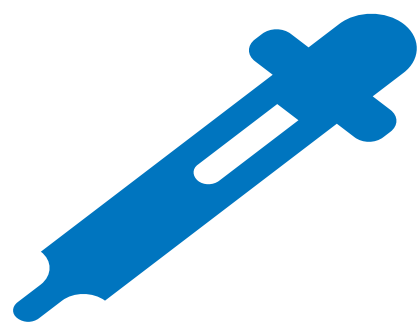
- A presumptive serological diagnosis can be made if a four-fold increase in *Brucella* antibody titres occurs between acute and convalescent serum specimens, or if titres are $\geq 1:160$ by standard tube agglutination test/*Brucella* microagglutination test.⁶
- Treatment for brucellosis without spondylitis, neurobrucellosis, or endocarditis is 6 weeks of doxycycline, with either a parenteral aminoglycoside for 7-21 days, or oral rifampicin for 6 weeks.⁸



Crp 51.
Otherwise
bloods normal



HIV, syphilis, Lyme,
leptospirosis IgM,
hepatitis B, hepatitis
C, Quantiferon tests
were negative.



Connective disease
screen negative



Blood
cultures were
sterile.



CT TAP-mild splenomegaly
and 3mm left upper and
lower lobe pulmonary
granulomas.



Close clinical monitoring and serologic
testing are essential, as relapse rates
post-treatment are 5-15%.⁹

Conclusion

- Had brucellosis not been considered, the patient could have developed serious complications.
- This case emphasizes the need for awareness of zoonoses in Ireland, and the importance of careful history-taking in returning travellers.

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