Dear Editor,

We refer to the letter ‘Lyme Neuroretinitis in Singapore: A Diagnostic Dilemma’ published in the April 2012 Vol. 41 No. 4 issue of the Annals, Academy of Medicine. We propose a differential diagnosis of Bartonella neuroretinitis for the case reported.

The authors described a 59-year-old Chinese man who had neuroretinitis with a macular star on retinal examination. Syphilis serology was negative. Enzyme-linked immunosorbent assay (ELISA) serology for Lyme disease showed a positive IgG titre. A repeat Lyme serology showed no rising titre and a confirmatory test using western blot was negative. The patient responded to treatment with intravenous ceftriaxone followed by oral amoxicillin. A weaning dose of oral steroid was also given for anti-inflammatory effect. Direct questioning of the patient revealed positive contact history with his dog that had a previous history of ticks. No significant travel history outside of Singapore was mentioned.

Discussion

The unique finding of a macular star on the retinal examination should prompt physicians to investigate for infective causes such as Bartonella, syphilis, Lyme disease and toxoplasmosis.1,2 As mentioned by the authors, there have been no reported cases of Lyme disease acquired in Singapore to date. The cases of Lyme disease are largely centred in North America and Europe.3

The Centers for Disease Control and Prevention (CDC) recommends a two-tiered approach to testing for Lyme disease, which consists of initial IgM and IgG quantitative ELISA, followed by confirmation of all indeterminate or positive ELISA test with separate IgG and IgM western blots. Without a significant travel history, it is possible that the initial Lyme serology was a false positive.

Bartonella infections have been reported in the Asian population. Pets, particularly cats and dogs, represent a large reservoir of hosts of Bartonella species. In Singapore, seroprevalence of Bartonella henselae in cats has been reported as 47%,4 although there is no data on the incidence in dogs. Bartonella henselae is more commonly described to cause cat scratch disease and while it is also found in dogs, other subspecies such as Bartonella vinsonii is more commonly associated with dogs. In Singapore, brown dog ticks (Rhipicephalus sanguineus) are the most common ticks found on dogs. Brown dog ticks can carry Bartonella species.5 The treatment for both Lyme disease and Bartonella infection is similar, with both organisms responding to ceftriaxone. Further laboratory investigation to rule out other infectious causes such as Bartonella should be sent for the patient.

REFERENCES