

LETTERS

Lyme carditis and neuroborreliosis

The 3 cases presented in the Practice section of the May 25, 2020, issue of *CMAJ* provide an informative discussion of the diagnosis and treatment of Lyme carditis and neuroborreliosis in a tertiary care centre.¹⁻³ I am a retired Ontario pediatrician and coroner, having practised for more than 50 years. In the last 15 years I was a member of the Paediatric Death Review Committee of the Ontario Office of the Chief Coroner.

Certain factors were common to each of these cases: known endemic area, clusters of symptoms and presence of a rash. Each of the 3 cases occurred in areas known to be endemic for ticks infected with *Borrelia*. In each case, the patient or caregiver described clusters of symptoms supporting multisystem involvement. All of the cases reported the presence of a rash.

Outcomes are best when Lyme disease is diagnosed and treated early. In these 3 cases, an earlier diagnosis of Lyme disease could have changed the eventual course of this disease.

Physicians need to recognize symptom clusters and maintain a high index of suspicion for Lyme disease. Dr. Elizabeth Maloney⁴ trains physicians about Lyme

disease and sits on a peer review committee for the Canadian Institutes of Health Research. She has spoken to the need for clinical judgment in the diagnosis and treatment of Lyme disease, stating: “Clinically, in keeping with its multisystem nature, Lyme disease has been described as being symptom rich, and exam poor.”⁴ Dr. Maloney elaborated: “What gives the individual symptoms of Lyme disease value is their occurrence in clusters; a single symptom means little, but 4 or 5 may, for all practical purposes, make the case.”⁴ To restrict the medical examination to objective findings will result in missed or delayed diagnosis.

Smith and colleagues⁵ reviewed 118 patients with microbiologically confirmed erythema migrans. Fifty-nine percent were homogeneous, 32% had dense central erythema and only 9% had classical central clearing. The authors listed the signs and symptoms associated with these various morphological patterns within the article. They noted that patients with early Lyme disease who did not have an erythema migrans rash presented with an average of 4 or more symptoms. Fever, chills, malaise and myalgia (all nonspecific) were present in 46%–71% of the patients with definite Lyme disease. Given this diverse morphology of presenting rashes, any rash occurring in

an endemic area (or on returning from travel in these areas) could be associated with Lyme disease and should be put at the top of the differential diagnosis, especially when patients present with clusters of symptoms.

Until there is a reliable, definitive test, we need to hone our clinical skills and add Lyme disease to our differential diagnosis.

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