Correspondence

Avoid Haste in Defining Human Muscular Sarcocystosis

To the Editor—we read with interest the recent article by Esposito et al [1] that attempts to both investigate and describe a suspected outbreak of acute muscular sarcocystosis on Tioman Island, Malaysia. Although we appreciate the need for a clear case definition to enable uniform capture of cases, we have concerns that this has biased the clinical picture of acute muscular sarcocystosis and should have been identified as a limitation. One required feature of the case definition was “an eosinophilia >500 cells/µL,” yet both this study and previous work have demonstrated that this is not an integral part of the disease [1, 2]. Biopsy-proven cases of muscular sarcocystosis may not have eosinophilia [2], and a clear demonstration of the variation of eosinophil counts within individuals has been shown here and previously [1, 2]. Additionally, not all patients have a raised creatinine phosphokinase (CPK) level, and this also varies throughout illness [2]; hence, requiring a CPK level >200 IU/L in addition to muscle pain would have excluded cases.

Of greater concern is the restriction of analysis to those persons who sought care after the fourth postdeparture week. We have previously demonstrated, from a point source outbreak, that the incubation period of the disease is most likely between 9 and 13 days with a median duration of symptoms of 17 days [2], so symptoms would have resolved by 28 days in approximately 50% of people. Noting that the first review of patients occurred at a median of 44 days after return, it is also likely that only those persons with the most prolonged symptoms were captured. Understanding the disease in its early phases is most important for diagnosis and consideration of treatment.

Only 6 of 15 biopsies demonstrated evidence of sarcocystosis, and we would be interested to know the sites of muscle biopsy. The use of magnetic resonance imaging (MRI) in a large sarcocystosis outbreak in Pangkor, Malaysia, demonstrated that not all muscles are uniformly involved with predominant involvement of mastication, calf, and superficial back muscles [2]. In this investigation, 4 of 4 biopsies showed evidence of sarcocystosis, including identification of Sarcocystis nesbitti by nucleotide sequencing in 3 cases [2–4]. MRI was a valuable tool in directing biopsy of the most affected muscle. The comment is made that “sarcocysts are likely distributed diffusely and difficult to find,” and to this effect we would encourage the use of MRI of the muscles, in particular T2-weighted short inversion time inversion recovery sequence.

We would also like to highlight that the symptoms of myalgia with fever, the phasic nature of the illness, and the later onset of eosinophilia and raised CPK have all been previously described in the outbreak in Pangkor [2, 3]. From this outbreak, where all exposed persons were identified, the attack rate, incubation period, and typical duration of symptoms were also determined [2].

We agree that understanding the natural cycle of the organism and treatment options and the development of more reliable means of diagnosis are important. However, we would argue that the manifestations of this disease in humans are yet to be fully understood and, as such, an awareness of the possibility of sarcocystosis in ill persons who live in or have visited Malaysia or neighboring countries is most important.

Note

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