

Abstract

Background: Leptospirosis is a zoonotic illness caused by pathogenic spirochetes of the genus *Leptospira*. The disease spectrum ranges from a mild influenza-like presentation to a more serious Weil's syndrome. Leptospirosis rarely presents as a primary neurological syndrome. We report two cases of *Leptospira borgpetersenii* serovar Tarassovi presenting as aseptic meningitis in Sri Lanka.

Case presentation: We describe case reports of two patients presenting as symptomatic aseptic meningitis due to neuroleptospirosis. Both patients had significant neurological involvement at presentation in the absence of common clinical features of leptospirosis. These patients were initially managed as bacterial or viral meningitis and leptospirosis was suspected due to a history of exposure to contaminated water. Subsequently, they were diagnosed to have neuroleptospirosis by positive *Leptospira* serology and both patients gained full recovery.

Conclusion: Our report highlights the importance of considering leptospirosis as a differential diagnosis in patients with aseptic meningitis in endemic settings. Obtaining a detailed occupational and recreational history is helpful in diagnosing neuroleptospirosis promptly. We report the association of *Leptospira borgpetersenii* serovar (sv.) Tarassovi (strain *bakeri*) in causing aseptic meningitis, which has not been reported to the best of our knowledge.

Keywords: Leptospirosis, Neuroleptospirosis, Aseptic meningitis, *Leptospira borgpetersenii* Serovar Tarassovi