

Abstract

Background

Leptospirosis and dengue fever are important infectious diseases in tropics and subtropics with a significant epidemic potential and a disease burden. Both infections share similar clinical manifestations at initial stages making early recognition of them challenging. Co-infections of leptospirosis and dengue infection which are currently under-reported can make the clinical picture more atypical and lead to misdiagnoses with increased morbidity and mortality. We present a patient with leptospirosis-dengue fever co-infection who had a remarkable recovery following early diagnosis and appropriate treatment.

Clinical presentation

Thirty year old previously healthy male with a history of leptospirosis exposure presented with fever, arthralgia, myalgia, reduced urine output and hematuria for 3 days. On examination, patient was febrile and hemodynamically compromised. Investigations revealed marginal thrombocytopenia, high C- Reactive Protein level and deranged renal functions. Possible co-infection of dengue fever and leptospirosis was suspected by positive Non- Structural dengue antigen(NS1) test and positive leptospirosis PCR assay. Patient was started on IV antibiotics and careful fluid management. Co-infection was confirmed subsequently with positive dengue IgM and IgG assays and rising titers of leptospirosis serological tests. Patient was completely recovered following 7 days of in-ward treatment without developing any complications.

Conclusion

Early recognition of mixed infections of dengue and leptospirosis is of utmost importance for proper initiation of therapy and improve the clinical outcome. In endemic areas, clinicians should consider co-infection of leptospirosis and dengue fever in patients present with undifferentiated fever and take measures to institute accurate and early serological diagnosis.