

Leptospirosis meningitis in adults

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Dear Editor,

Although leptospirosis is not a major public health problem in the Netherlands, its incidence as well the rate of infections locally contracted (62%) have increased more recently, as I read in the interesting article by Van Samkar and colleagues about leptospiral meningitis.¹ They reviewed 19 adults, 78.8% males, in the age range of 17-61 years, and 95% of the individuals contracted leptospirosis outside the Netherlands. Suspicion of meningitis occurred in seven cases and was confirmed in four patients (21%).¹ Moreover, the authors reviewed 366 cases of leptospiral meningitis affecting adult people from Europe, Asia and America, published between 1947 and 2014. Similarities were observed in male prevalence (82%) and age range (17-77 years).¹ Major clinical features and laboratory data related to diagnoses of leptospirosis and leptospiral meningitis, and the favourable role of early antibiotic therapy on the outcome of severe complications were emphasised.¹⁻⁴ Contact with contaminated fresh or sewage water was highlighted as a risk factor for leptospiral infection.¹⁻⁴ While the estimated incidence of leptospirosis in the Netherlands is 0.57 per 100,000 inhabitants,¹ the globally estimated incidence is approximately 500,000 severe cases yearly.⁴ Weil's syndrome includes jaundice, renal failure and haemorrhagic phenomena, and represents the most severe clinical manifestations of leptospirosis, involving high mortality.²⁻⁴ Weil's syndrome was not observed in the four patients with meningitis described by Van Samkar and colleagues.

In this setting, I would like to comment on the case report of a 19-year-old Brazilian man with the typical syndrome in addition to leptospiral meningitis successfully controlled by penicillin.³ The infection caused by *L. grippityphosa* was

associated with swimming in a river barrage. Laboratory determinations showed elevated blood levels of urea nitrogen, creatinine, and total bilirubin, and the routine tests on the cerebrospinal fluid confirmed the diagnosis of aseptic meningitis. This young man had severe disturbance of hepatic and renal functions, in addition to conspicuous cutaneous and conjunctival haemorrhagic phenomena. The improvement was due to early diagnostic suspicion and administration of intravenous penicillin G. The patient's hospital discharge occurred three weeks after admission, without any sequelae.³ Although icteric patients are more prone to have poorer outcomes, anicteric leptospirosis has also been associated with complications such as pneumonitis, pancreatitis and pericarditis.^{2,4}

DISCLOSURES

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REFERENCES

1. Van Samkar A, van de Beek D, Stijnis C, Goris M, Brouwer MC. Suspected leptospiral meningitis in adults: report of four cases and review of the literature. *Neth J Med.* 2015;73:464-70.
2. Helmerhorst HJ, van Tol EN, Tuinman PR, et al. Severe pulmonary manifestation of leptospirosis. *Neth J Med.* 2012;70:215-21.
3. Dos Santos VM, dos Santos JA, Sugai TA, dos Santos LA. Weil's syndrome. *Rev Cubana Med Trop.* 2003;55:44-6.
4. Santos VM, Santos UM, Gebrin DG, Santos AM, Cancado AC. Anicteric leptospirosis with pneumonitis, pericarditis and acalculous cholecystitis. *Infez Med.* 2014;22:236-40.