

Manifestations and complications of leptospirosis

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To the Editor

Leptospirosis has been considered a major emerging or re-emerging cosmopolitan health burden, which may constitute challenging diagnostic pitfalls on the primary care settings due to nonspecific and variable manifestations, and lack of laboratory resources availability (1-3).

In rural environments, even in absence of liver or renal disorder, occurrence of fever, headache, hemorrhages, myalgia, and arthralgia should raise the hypothesis of leptospirosis; however, the concern about eventual dengue or Hantavirus co infections has increased (3-5).

In Iran, as well as in Brazil, epidemiologic studies on leptospirosis have merit special interest; therefore, I would like to highlight two recent Iranian papers about this zoonosis (1,2). Alian et al. evaluated demographic, clinical, and laboratory data of 66 inpatients diagnosed as Weil's syndrome; their main characteristics were male gender (89.4%) and farmers (60%); fever (approximately 91%), headache (75.8%) and myalgia (65%); low platelets (90%), high transaminases (over than 93%) and alkaline phosphatase (76.2%) (1). Worthy of note, both hypernatremia (72.8%) and hyponatremia (7.6%) were observed, and acute pneumonia and pancreatitis were found in 25.8% and 4.5% of cases, respectively. Positive serology was detected in 78.8% of the patients, and the mortality rate was 4.5% (1).

Najafi et al. studied the relationship be-

tween clinical and laboratory data and complications of leptospirosis in 634 patients (76.5% farmers) with a mean age of 41.25 ± 16.95 years; main characteristics were fever (92.1%), myalgia (79.8%), headache (60.1%); low platelets (67%), high transaminases (over than 73.3%) and alkaline phosphatase (71.5%). Hyperbilirubinemia (nearly 40%), and hypernatremia (32.5%) or hyponatremia (5.2%) were also observed (2).

Complications occurred in 9.6% of cases and were associated with renal and pulmonary disorders, low platelets, leukocytosis, hyponatremia, and elevated levels of liver markers; jaundice occurred in 33% of patients, a lower rate than is described in Brazilian studies (2).

Santos et al. reported a young Brazilian man with anicteric leptospirosis successfully controlled, despite of lung infiltrates, acalculous cholecystitis, pancreatitis and pericarditis (3).

The authors emphasized the diagnostic challenges related to the absence of classical triad of Weil's syndrome in their case study, and highlighted the suspicion index based on the presence of fever, headache, myalgia, arthralgia, and the exposure to a rural environment (3).

Worthy of note was the involvement of pancreas and gallbladder in Iranian and Brazilian cases, phenomenon which could contribute to increase the list of diagnostic dilemmas (1-3). Moreover, gastrointestinal, as well as pulmonary and cardiac complica-

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tions, enhance the risk of death in anicteric leptospirosis, and may lead to higher rates of morbidity and mortality.

The commented studies surely contribute to a better understanding of the role of clinical and laboratory findings on establishing early diagnosis and prompt treatment of leptospirosis. Primary health care workers should be aware about underestimated infectious conditions.

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Conflicts of interest

There are no conflicts of interest to disclaim.

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