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Severe leptospirosis complicated by Weil's syndrome, necrotising pancreatitis, and aseptic meningoencephalitis: a case report and literature review

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Introduction

• Leptospirosis is a re-emerging zoonotic disease caused by spirochetes of the genus Leptospira, with a high incidence in

both tropical and temperate regions.

• Jaundice-haemorrhagic leptospirosis can lead multisystem dysfunction during the immune phase,

resulting in complications.

• Some of these complications are rare and include acute pancreatitis and aseptic meningoencephalitis.

Objective

Report a case of severe leptospirosis complicated by Weil's syndrome, necrotising pancreatitis, aseptic and meningoencephalitis.

Case Presentation

• A 48-year-old patient working in a poultry slaughterhouse presented with impaired consciousness, bright orange jaundice, and a hemorrhagic syndrome characterised by hematemesis, melena and oligoanuria with an estimated diuresis of 300cc/24hour.

• History of the disease: The symptoms began two weeks ago, starting with bright orange jaundice and a fever of unknown origin. As the disease progressed, the patient exhibited signs of hemorrhagic syndrome and oligoanuria, with a urine output of only 300 cc per day. Additionally, the patient experienced abdominal pain accompanied by vomiting. The sudden onset of altered consciousness led the family to seek medical attention family to seek medical attention.

• Physical examination: Glasgow score of 13/15, polypnoea at 32 cpm with SaO2 at 88% in ambient air and 98% under a

10-litre high-concentration mask.

• Laboratory analyses: High white blood cell count 27,200/mm3, platelets at 367,000/mm3, Hb 11.7 g/dl, creatinine 43.9 mg/l with collapsed GFR 15 ml/min, urea 1.77 g/l, high amylase 439 IU/L, lipase 492 IU/L, CPK 1509, LDH 787, conjugated bilirubin 123, total bilirubin 238, free bilirubin 113, gamma-glutamyl transferase 237, alkaline phosphatase 275 and CRP 132 mg/L
• Lumbar puncture results: Meningitis with cloudy fluid and a plecytosis of 32 cells/mm3, predominantly lymphocytic (60%) high protein level of 1 09 g/l and glucose level of 0.9

(60%), high protein level of 1.09 g/l and glucose level of 0.9 g/l. Multiplex PCR of CSF was negative.

Serology results

Leptospirosis ELISA serology on day six was positive for IgM antibodies. Serology tests showed negative results for hepatitis A, B, and C, as well as for HIV-1 and HIV-2. Serum protein electrophoresis revealed no abnormalities.

• Imaging studies :

 - A cerebral CT scan was indicated for impaired consciousness, showing abnormal communication between the lateral ventricle and the subarachnoid space.
 - Abdominal and pelvic CT scan with contrast injection revealed accumulations of peripancreatic fluid that increased in size peripherally after the injection of iodinated contrast medium. contrast medium

IMAGING

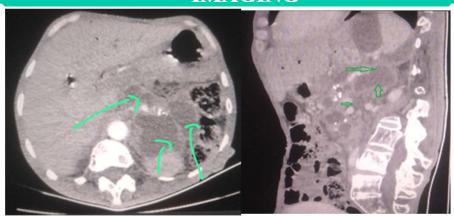


Figure 1: Axial (A) and sagittal (B) sections of an abdominal CT scan showing peripancreatic collections that intensify peripherally after contrast injection

Treatment

The patient was initially treated with a third-generation cephalosporin parenterally for ten days at a dose of 2 g/day, followed by oral ciprofloxacin at a dose of 500 mg every 12 hours from the eleventh day onwards, following a good clinical course. On day 16, the patient presented with a new episode of haematemesis leading to haemarrhagic shock episode of haematemesis, leading to haemorrhagic shock, respiratory distress and cardiopulmonary failure.

Conclusion

Severe leptospirosis can occur in non-endemic countries and lead to rare complications, which complicate therapeutic management and affect vital prognosis.

Conflicts of Interest

The authors declare that they have no competing interests.

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