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- 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 to multisystem dysfunction during the immune phase, resulting in complications.
- Some of these complications are rare and include acute pancreatitis and aseptic meningoencephalitis.

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

- 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.

- **Physical examination:** Glasgow score of 13/15, polypnoea at 32 cpm with SaO<sub>2</sub> at 88% in ambient air and 98% under a 10-litre high-concentration mask.

• Laboratory analyses: High white blood cell count 27,200/mm<sup>3</sup>, platelets at 367,000/mm<sup>3</sup>, 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 pleocytosis of 32 cells/mm<sup>3</sup>, predominantly lymphocytic (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

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

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 haemorrhagic shock, respiratory distress and cardiopulmonary failure.

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

**The authors declare that they have no competing interests.**

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