

中文題目：鈎端螺旋體感染引起之急性腎衰竭：一病例報告

英文題目：Acute Renal Failure Caused by Leptospirosis Infection: A Case Report

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Background: Leptospirosis (LS) is a spirochetal zoonosis with complex clinical features including renal, liver failure, headaches, muscle pains, fevers, severe with bleeding from the lungs or meningitis, and bleeding. LS infection is rare in Taiwan. We report acute renal failure caused by LS infection in a patient.

Case Report: A 36-year-old male of denied any systemic disease before suffered from fever for few days. He is a butcher working at the slaughterhouse. Fever and water diarrhea were found four days ago. He was brought to emergency department on April 28, 2016. Laboratory data revealed WBC, 8,300 / μ L with 5% bandemia; platelet count, 85,000 / μ L; c-reactive protein, 144 mg/L; procalcitonin, 198 ng/ml; lactate, 0.8 mmole/L; Fibrinogen, 748.2 mg/dL; FDP, 10.9 ug/mL; D-Dimer test, 2803.2 ng/mL(FEU); BUN, 38 mg/dL; creatinine, 3.79 mg/dL; AST, 174 U/L; ALT, 174 U/L; Bili Total, 3.45 mg/dL, HBsAg, < 0.05 IU/mL; and Anti-HCV, Negative. Hydration was given for acute renal failure. CXR showed suspect pulmonary venous congestion & bronchitis at bilateral lungs. Then he was admitted to intensive care unit. Empiric antibiotic treatment with piperacillin-tazobactam and levofloxacin were given. Atypical pneumonia titers, influenza rapid tests, dengue rapid tests and dengue PCR were all negative. Abdominal sonography shows negative finding. He complained about neck stiffness and bilateral ocular pain. Brain CT showed no obvious lesion. Ophthalmologist was consulted and revealed chronic conjunctivitis. Hepatic function was improved but there was progressive renal function impairment on April 29. Abdominal CT revealed bilateral pleural effusion with lower lung atelectasis and ascites. We had discussed with nephrologist doctor and hemodialysis was started since May 2. Hemodynamic stats were improving. Then he was transferred to the general ward on May 4. Acute tubular necrosis was suspected. He had adequate urine output, even polyuria and his renal function was gradually improving. Diuresis was discontinued. Stool culture yielded bifidobacterium species and urine culture yielded coagulase-negative staphylococcus species. Minocycline were kept on May 6. Double-lumen catheter was removed because of improving renal function. Urine output showed no more proteinuria. He was able to be discharged in stable conditions and took oral minocycline keeping therapy back home on May 11. Regular follow up at nephrology outpatient departments. CDC reported positive of microscopic agglutination test on May 18, 2016.

Conclusion: The incidence of leptospirosis is underestimated in Taiwan. Leptospirosis with acute renal failure is a severe disease, frequently leading to multi-organ failure, and death. The leptospira IgM assay may aid early diagnosis. When leptospirosis is clinically suspected, treatment with appropriate antibiotics should be initiated immediately. May be prescribed to reduce the chance of developing infection.