Shaping Tomorrow's Nephrology: Insight-Driven Kidney Care
KSN 2026 SEOUL, KOREA
The 46th Annual Meeting of the Korean Society of Nephrology
THE KOREAN SOCIETY OF NEPHROLOGY
Jun 11 (Thu) – 14 (Sun), 2026
COEX, Seoul, Korea

Abstract Type : Poster exhibition
Abstract Submission No.: A-0724
Abstract Topic : Acute Kidney Injury

Leptospirosis-Associated Acute Kidney Injury : A Case Series

Siti Zahra Afifah[1], Kuspudji Dwitanto Rahardjo[2], Muhammad Usman Sulaeman Markum[2], Chandra Prabaswara[3], Belia Kristina[4]
[1]Department of General practitioner, Islamic Jakarta Hospital, Indonesia
[2]Department of Internal Medicine-Nephrology, Jakarta Islamic Hospital, Indonesia
[3]Department of General practitioner, KMU Eye Hospital Lamongan, Indonesia
[4]Department of Biomedical Science, UPN Veteran Jakarta, Indonesia

Case Study : Leptospirosis is a re-emerging zoonotic disease with a high burden in tropical and subtropical regions, including Indonesia. The clinical course of AKI in leptospirosis can range from non-oliguric, hypokalemic AKI to severe oliguric/anuric renal failure requiring Renal Replacement Therapy (RRT). We present a case series of three patients admitted with leptospirosis-associated AKI. Case 1: A 48-year-old female presented with a 2-day history of fever, nausea, epigastric pain, shortness of breath, and reduced urine output. The patient developed an icteric sclera and a bloated abdomen, with ultrasound revealing hepatosplenomegaly. The patient required a total of 7 hemodialysis (HD) sessions and a series of blood transfusions. The patient's clinical status improved, and he was discharged on Day 19. Case 2: A 31-year-old male garbage collector came with complaints of a 1-week history of fever, right upper quadrant (RUQ) pain, dyspnea, jaundice, and severe oliguria. The patient was undergoing urgent HD on Day 2. He received a total of 4 HD. Following HD, his urine output rapidly increased. At the 2-week follow-up, serum creatinine had decreased to 1.5 mg/dL. Case 3: A 35-year-old male with a history of hypertension and exposure to pets presented with 10 days of nausea, vomiting, epigastric and RUQ pain, pale stool, jaundice, and oliguria. The patients had unstable vital signs and critical abnormalities in the laboratory test results. The patient was admitted to the ICU, requiring intubation. Abdominal distention was observed, along with continuous bleeding from the nasogastric and endotracheal tubes. HD was delayed due to initial family refusal. The patient died in cardiac arrest due to multiple organ failure. Early diagnosis of kidney injury related to leptospirosis is crucial for initiating therapy and appropriate interventions. This can reduce kidney injury, lower the risk of severe complications, and limit disease progression.

TABLE 1 Case Series Characteristics.png

TABLE 1. Demographic, Clinical, Laboratory, and Outcome Characteristics of the Case Series

Parameter	Case 1	Case 2	Case 3
Demographics (Age, Sex)	48 years, Female	31 years, Male	35 years, Male
Occupation / Risk Factor	Housewife (No obvious exposure)	Garbage Collector (High occupational risk)	Bird owner
Comorbidities	None	None	Hypertension, Smoker, Ex-alcoholic
Chief Complaints	Fever, nausea, epigastric pain, dyspnea, oliguria, general weakness	Fever, RUQ pain, bloated abdomen, dyspnea, jaundice, oliguria	Nausea, vomitus, epigastric and RUQ pain, pale stool and urine, jaundice, oliguria
Vital Signs (Admission)	BP 96/41 HR 142 RR 22 OS 99% RA T 36.7 C	BP 141/70 HR 105 RR 24 OS 98% RA T 38.8	BP 81/49 HR 140 RR 23 OS 97% NC T 37.6 C
Physical Examination (Admission)	Alert, tachycardia, icteric sclera	Alert, icteric sclera, jaundice, shifting dullness	Alert, Cold extremities, tachycardia, icteric sclera, jaundice
Anti-*Leptospira* IgM	Reactive (Day 9)	Reactive (Day 5)	Reactive (Day 4)
Creatinine	8.7 mg/dL (Day 1) 11.9 mg/dL (Day 5, Peak)	8.8 mg/dL (Day 1, Peak)	6.2 mg/dL (Day 1, Peak)
Ureum (BUN eq.)	164 mg/dL (Day 1) 383 mg/dL (Day 10, Peak)	291 mg/dL (Day 1, Peak)	256 mg/dL (Day 2) 281 mg/dL (Day 6, Peak)
Platelet Count	76,000 /μL (Day 1)	41,000 /μL (Day 1)	24,000 /μL (Day 1)
Leukocyte Count	18,330 /μL (Day 1) 26,560 /μL (Day 13, Peak)	14,580 /μL (Day 1) 22,870 /μL (Day 2, Peak)	18,510 /μL (Day 1) 34,790 /μL (Day 3, Peak)
Total Bilirubin	13.3 mg/dL (Day 6, Peak)	15.2 mg/dL (Day 1, Peak)	21.6 mg/dL (Day 1, Peak)
Blood Gas Analysis (BGA)	pH: 7.368 pCO2 21.9 mmol/L HCO3: 12.7 mmol/L	pH: 7.338 pCO2 17 mmol/L HCO3: 9.2 mmol/L	pH: 6.985 pCO2 37.5 mmol/L HCO3: 9.0 mmol/L
Complications	Splenomegaly, Fatty liver	Bilateral pneumonia	Acute Pancreatitis (Amylase 1591, Lipase 699), Pulmonary Hemorrhage, Seizure
Antibiotic Therapy	Ceftriaxone, Levofloxacin, Cefotaxime, Meropenem	Ceftriaxone	Ceftriaxone, Metronidazole, Meropenem
Hemodialysis (HD) Initiation	Day 6	Day 2 (Urgent HD)	Delayed to Day 5 (Due to family refusal)
Total HD Sessions	7 sessions	4 sessions	1 session
Length of Hospital Stay	19 days	12 days	6 days
Clinical Outcome	Discharged; renal recovery (Cr 1.7 at discharge)	Discharged; renal recovery (Cr 1.5 at follow-up)	Died (Cardiac arrest secondary to Multiple Organ Failure)

TABLE 1 Case Series Characteristics.png