

A Peculiar Case of Jaundice and Renal Failure after Hurricane Ida

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INTRODUCTION:

- Leptospirosis is a zoonotic disease seen in tropical and temperate regions, with roughly 1.03 million cases worldwide and 58,900 deaths annually. Infection occurs with exposed to the tissue or urine of colonized rodents, cattle, swine, dogs, or sheep.
- Symptoms include fever, myalgia, and rigors. Laboratory findings in severe cases include hyponatremia, elevated hepatic enzymes, renal failure, and thrombocytopenia.
- The associated jaundice is thought to be due to hepatocellular necrosis, intrahepatic cholestasis, and absorption of tissue hemorrhage. In severe cases of jaundice and renal failure, “Weil's Disease” is diagnosed.

DISCUSSION

- Over the past 5 years, locally acquired cases of leptospirosis have surpassed travel associated infection in our local jurisdiction.
- *Leptospira* is endemic in mostly southern and Pacific coastal areas of the US, as well as Hawaii. In developed countries, leptospirosis is commonly seen after heavy rainfall and floods.
- Climate studies have pointed to a positive correlation between cases of leptospirosis and significant changes in climate and associated flooding.

CASE REPORT:

- Hurricane Ida produced record rainfall in the northeastern US over an 18 hour period.
- Five days following the storm, a 52 year old male with no significant past medical history, presented to our ER complaining of fever, night sweats, chills, fatigue, and generalized weakness.
- On presentation, his blood pressure was 136/68 mmHg, heart rate 159 bpm, temperature 36.4 degrees C, and oxygen saturation of 95% on room air.
- His exam was notable for scleral icterus, jaundice, and tachycardia.
- The patient's renal failure subsequently worsened with BUN/creatinine reaching 114/7.48 mg/dL.
- Abdominal ultrasound and MRCP demonstrated no abnormalities.
- On day 4 urine DNA for *Leptospira* was positive, though serum *Leptospira* PCR was negative.
- He was started on doxycycline and ceftriaxone with improvement in his symptoms, jaundice and renal failure.

Hemoglobin	14.3
Platelets	68,000
MCV	84
ESR	58
BUN/Cr	54/2.9
Sodium	129
Tbili	6.7
Dbili	5.08
ALT	78
AST	191
Alkaline Phosphatase	102
CPK	3,600
Lipase	2.3
LDH	WNL
Haptoglobin	WNL
Reticulocyte	WNL
Hep Panel	WNL
Ds-DNA	WNL
IgAGEM	WNL

Table 1: Labs from admission