

The (Icteric) Eye of The Storm

A Case of Weil's Syndrome

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LEARNING OBJECTIVES

- Leptospirosis is one of the most prevalent zoonotic diseases, with variable gastrointestinal and hepatic manifestations
- Leptospirosis primarily affects tropical areas, yet also observed in urban areas affected by a flood or a hurricane

CASE PRESENTATION

A 63 year-old man with no significant medical history was evaluated for muscles pain, fatigue, and diarrhea of 3 days duration

Findings

- Fever up to 102 F
- Conjunctival icterus
- WBC- 18 k/uL, HGB- 7.5 g/dL, PLT- 40 k/uL
- Creatinine- 5 mg/dL, BUN -85 mg/dL, INR- 1.5
- AST- 96 U/L, ALT- 113 U/L
- ALP- 192 U/L, TB-39.2 mg/dL (D- 23.6 mg/dL)
- Negative evaluation for common obstructive, infiltrative, infectious and autoimmune liver disease
- Unremarkable MRCP and US abdomen

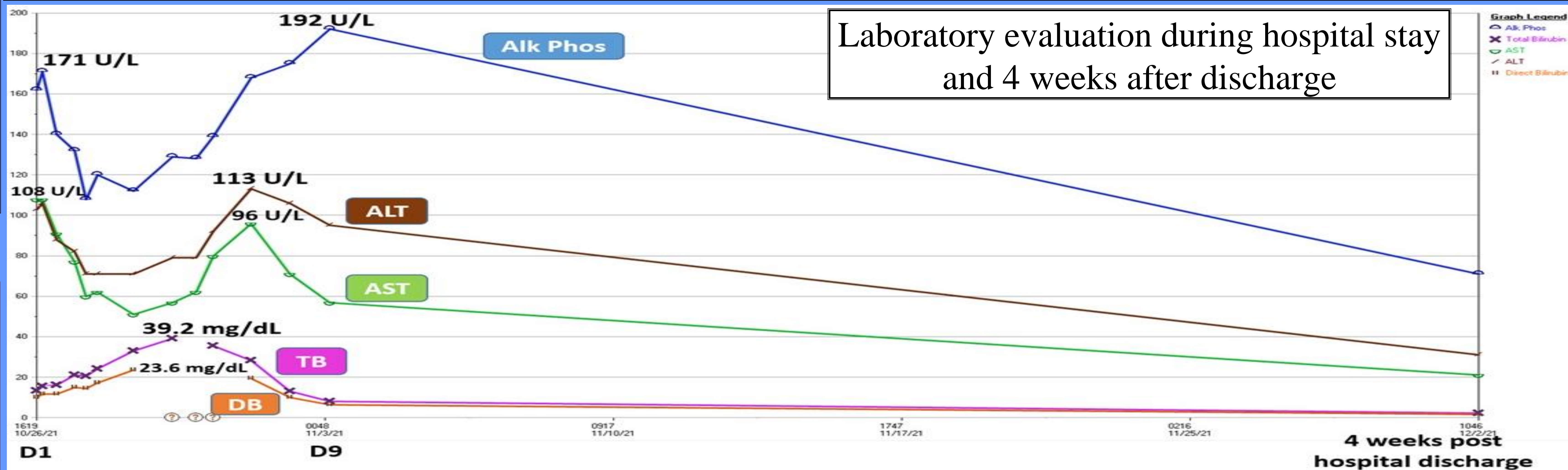
Further information

- Negative parasite blood smear and Leptospira IgM
- The patient's basement was recently flooded by a hurricane

Treatment provided:

- Empiric Ceftriaxone, despite negative Leptospira studies
- Resolution of symptoms and lab abnormalities
- Follow-up visit at 4 weeks with positive IgM antibodies for Leptospira

LABORATORY FINDINGS



DISCUSSION

- Causative agent: A Gram-negative spirochete
- Transmitted to humans via mucous membranes, open skin wounds or after drinking, eating, swimming, or wading in water contaminated by stool or urine of infected rodents
- Mostly in tropical areas, yet also found in urban areas affected by floods or hurricane
- Dx: Blood & urine cultures, anti Leptospira IgM
- Tx: Penicillin, 3rd generation Cephalosporin and Doxycycline, if administered early

Clinical manifestations:

90% of cases: anicteric disease

- Phase 1: viral-like illness, conjunctival suppuration >> transient improvement >>
- Phase 2: myalgia, abdominal pain, hepatomegaly, moderately increased TB, ALT,AST

10% of cases: Weil's syndrome

- Phase 1: jaundice
- Phase 2: fever, profound jaundice, severely elevated TB (mostly direct), ALT, AST
- Renal and liver involvement can be fatal

CONCLUSIONS

- Clinician should keep high clinical suspicion for prompt diagnosis of leptospirosis in urban areas affected by floods, and consider empiric treatment