Thrombocytopenia, fever, rash, hypotension

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Case

Chief Complaint: Fever, diarrhea, bloody nose, rash

HPI: 38 y/o Indonesian Male
• Presented to urgent care w/ 5 days of fever, epistaxis, and melena.
• Recent 2 week trip to Indonesia w/ daughter for family wedding
  • Returned 1 week ago
• Hypotensive, light-headed with scattered petechiae and thrombocytopenia (PLT 10).

Social Hx: Born in Indonesia.

Family Hx: Daughter w/ similar symptoms w/o bleeding.
Physical Exam

BP: 96/59, HR: 114, Temp: 102.6

- GENERAL: diaphoretic
- HEENT: petechiae on palate, dry mucous membranes, dried blood on nares
- ABD: epigastric tenderness
- SKIN: petechiae on LUE and bilateral LE, +Tourniquet Sign
Differential Diagnosis

US Patient
- DIC from Sepsis
- TTP/HUS
- Tick Borne Disease
  - Babesiosis
  - Ehrlichiosis

Returning Traveler
- Vector Borne Illness
  - Malaria
  - Dengue
- Typhoid
- Tick Borne Disease
  - Scrub Typhus
- Meningococcal Sepsis
Admission Labs

Blood Smear:

- PTT: 67
- INR: 1.1
- LDH: 634
- Fibrin Monomer: (-)
- Fibrinogen: 205

Blood Cultures: Pending
Stool Cultures: Pending

- AST: 138
- ALT: 61
- Alk Phos: 55
- Tbili: 0.4
Hospital Course

• Hypotension - fluid responsive. Developed edema
• Skin – morbilliform rash developed across trunk, petechiae resolved
• Fever – defervesced
• Epistaxis – Resolved without recurrence
• Melena – resolved with some residual loose stool
  • Treated w/ Ceftriaxone for 5 days given concern for typhoid.
• Thrombocytopenia – Improved without transfusion
  • Plt – 69
• Blood cultures negative
• Dengue antibodies IgM and IgG positive after 5 days
Dengue Epidemiology

• WHO estimates 50 - 100 million infections yearly.
• US reports ~100 cases per year
  • Most due to returning travelers
  • Sporadic outbreaks in Florida, Hawaii, and Texas
• Vector Borne Illness
  • Incubation Period 4-10 days
• Four different strains
  • DENV 1-4
WHO 2009 Classification

Dengue w/o Warning Signs
- Nausea, Rash,
- Leukopenia,

Dengue w/ Warning Signs
- Abdominal pain,
- Mucosal Bleeding,
- Plasma leak
- Thrombocytopenia, High HCT

Severe Dengue
- Shock due to severe plasma leakage
- Severe Bleeding
- Organ Failure
Diagnosis

- Dengue Serology
  - anti-DENV IgM and IgG
  - Real time PCR
  - Non structural Enzyme ELSIA (NS1)

- During febrile phase (10 days) Serology w/ RT PCR or NS1 is highly specific and sensitive.
In Summary

• Returning traveler w/ fever, petechiae, bleeding diatheses
  ▪ Always rule out sepsis, DIC, TTP/HUS
  ▪ Must consider Dengue, Malaria, Typhoid, Rickettsial Diseases
  ▪ Travel history helps guide diagnosis

• Patients w/ prior exposure present w/ worse symptoms
  ▪ Why his daughter had lessened response

• Supportive therapy is key in Dengue
Thank you…

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Citations


