9/7/25 Morning Report with @CPSolvers

***"One life, so many dreams" Case Presenter**: (Eugene@EugeneBondzie) **Case Discussants**: (Zakariyya@pouroverguy) and (Maddy@MadellenaC)*

https://clinicalproblemsolving.com/present-a-case/

Scribing (Seeme)

CC:7 year old boy with 2 day history of pain in chest and 1 day history of fever

HPI: 2 days prior upper chest pain in school, had trauma history. Localized to upper chest and tenderness, no similar episodes in past, low energy for 1 M

ROS: no nausea, vomiting, cough or SOB.

PMH:
Not significant

Meds:
Vaccination history unclear
No neonatal screening done

Fam Hx:
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Social Hx:
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Health-Related Behaviors:
Not significant

Allergies: NKDA

Vitals: T: 38.6 **HR:** 112 **BP:** 90/60 **RR:** 22 **Sat:** 98 **BMI:**
Exam: Gen: irritated
HEENT: wnl
CV: wnl
Pulm: no crepitations, only pain present
Abd:wnl
Neuro:wnl
Extremities/skin: wnl

Notable Labs & Imaging:
Hematology:
WBC: 22k (N predominant) Hgb: 8.34 Plt:elevated-very high MCV:79

Chemistry:
Na: 132 K: 4.1 Cl:99.8 HCO3: Cr: nl BUN: Glucose: Ca: Mg:
AST: 45 ALT:70 Alk-P:nl Bili:high (indirect predominant) Albumin: Total Protein:
ESR: 54 CRP: 44 LDH:high 425
Blood cultures: negative, peripheral smear: anisopoikilocytosis, target cells, no blasts
Hb electrophoresis: HbS-50%, HbC-46%, HbA-0%
Imaging:
CXR: normal
Supportive care including hydration, pain meds and empiric antibiotics given.

Dx: HbSC disease complicated by vaso-occlusive pain crisis precipitated by trauma

Problem Representation: 7 year old boy presented with pain and tenderness in the chest and fever associated with low energy for one month.

Teaching Points (Masah):
Chest Pain: Thoracic cavity (heart, lungs), Upper Abdominal (esophageal)
R/o Emergent Causes 4 + 2 + 2 (cardiac, pulmonary, esophageal)
Acute Fever: prioritize infections. Thoracic → pulmonary infx. Extrathoracic→ cutaneous infx.
W/ trauma: Think of pulmonary contusion
Low energy for **1 month:** Subacute-chronic.
Unremarkable physical exam except **irritability + subacute time course** → blood work will help us make progress. (look for nutritional deficiencies, IDA, hematological malignancies)
Labs: Neutrophilic leukocytosis, Hemolysis (elevated LDH, elevated indirect bilirubin, elevated reticulocytes, anemia)
Hemolysis: Is it an issue with the RBC or the environment (eg. Abs, microthrombi)
DAT test: immune mediated or non immune mediated hemolysis
With the chest pain → think of sickle cell disease
MCV should be elevated but it's normocytic so is there another process that is causing microcytic anemia?
Liver enzymes slightly elevated (ALT>AST): systemic issue with hepatobiliary system, like viral infections.
Complications of sickle cell disease: Acute chest syndrome, calculous cholecystitis, Asplenia (h influenzae, n meningitis, s pneumoniae)

Final explanation: Trauma precipitated a vasocclusive crisis. Cytokine storm → fevers. Abnormal cells → elevated WBC