



# 11/2/20 Morning Report with @CPSolvers



Case Presenter: Kushal Vaishnani (@K\_vaishnani) Case Discussants: Siddharth Agarwal(@Sid\_Agarwal\_96) and Fernand Bteich(@FernandBteich)

**CC:** Syncope.

**HPI:** 87yF presents w/ syncope. Family found her past out prior to presentation in ER. No head trauma; patient was reactive w/ no post-episode confusion. No palpitations, nausea, vomiting.

3-4w ago: no changes in mentation or ambulation. Fall 3w ago, no significant injuries or fractures. Currently, she's staying in bed, not socializing and sleeping for longer period of times.

**PMH:**  
CVA 15y ago- no residual deficits. DM2, HTN, hyperlipidemia, CKD 3.

**Meds:**ASA, atorvastatin, amlodipin, hydralazine, HCTZ, lisinopril, metformin.

**Fam Hx:**DM2, HTN (mother), COPD (father)

**Soc Hx:** Retired.

**Health- Related Behaviors:**No alcohol or drug use. Quit smoking 35y ago.

**Allergies:**

**Vitals:** T:nl HR:60 BP:128/40 RR:20 SpO<sub>2</sub>: 92% RA BMI:25

**Exam:**

**CV:** Normal.

**Pulm:** CTAB. Symmetric expansion w/ no sign of pain on deep inspiration.

**Abd:** Soft, non tender.

**Neuro:** Alert and oriented 2 spheres (baseline). No sensory deficits. 4/5 lower extremity strength, 5/5 upper extremity strength. Speech nl. Flat affect. Anxious.

**Extremities/Skin:** Normal range of motion w/no pain. Ecchymotic skin lesion in both arms, face; and marks on left side of face that appeared after fall.

**Notable Labs & Imaging:**

**Hematology:** WBC: 3.3 Hgb:4.9 Htc 15 MCV 105 RDW 17 Plt:17,000 (CBC normal 6m ago.) Reticulocytes: 2.8 (elevated) INR 1.2 TTP: 23. Fibrinogen 268 Iron 225, TIBC 223 Trans. Sat: 101% Ferritin: 191 Vitamin B12: 11.23 Folic acid normal. LDH:303 Haptoglobin: 201.

**Peripheral smear:** pancytopenia, no blasts. Anemia positive for anisopoikilocytosis. Positive dacrocytes and ovalocytes w/ few schistocytes. Giant platelets. 1+ tear drop cells noted.

**Bone marrow biopsy:** Maturing myeloid + erythroid elements. Dismyelopoiesis w/abnormal granulation. Megakaryocytes are atypical w/dysplastic forms. Ring sideroblasts 16% of erythroid cells. 300 Nuclear cells: 14.3% blasts, 7% promyelocytes, 27% myelocytes, 13.3 metamyelocytes, 10% bands, 6.7% neutrophils 1.7% lymphocytes, 0.3% monocytes, 19% erythroid precursors. **Type 2 Myelodysplastic syndrome.**

**Chemistry:**Na:136 K:4.2 Cl:102 CO2:22 BUN: 24 glucose:162 Cr. 1.59 (baseline:) GFR 64. Ca 9. Mg 1.5. P 3.1 Albumin: 3.7 TP 6.5, TB 0.3, Alk-P: 66, ALT: 10, AST: 16. TSH: nl. Triglycerides 108. HIV neg. Parvovirus B19 neg.

**Imaging:**  
Head CT: no ischemia or masses, right parietal encephalomalacia.

**Problem Representation:** 87F w/ PMHx significant for increased cardiovascular risk presents with syncope. Laboratories showed pancytopenia w/ probable bone marrow involvement on smear. Further labs confirmed a **type 2 myelodysplastic syndrome.**

**Teaching Points (Kiara):**

- **Syncope:**  
↓CO: Cardiogenic(Ao stenosis, pulmonary HTN, myocardium, effusion), hypovolemia (dehydration/blood loss), arrhythmias
- ↓Resistance: medications adverse reaction, vasovagal (aura, lightheadedness),
- Mimickers:** Seizures, hypoglycemia(Dextrose), stroke/TIA.
- Diabetes + neuropathy -> Falls
- Encephalopathy -> LOC
- Fall + ASA -> Subdural haemorrhage
- **Macrocytic anemia:** Hypothyroidism, liver disease, megaloblastic (folic/ B12)
- High MCV can be due to presence of high reticulocytes
- B12 deficiency mimicker low copper zinc
- Spleen sequestration/ peripheral destruction/ bone marrow production problem
- Schistocytes can be normally present 1-3%
- Ring sideroblast: lead poisoning, myelodysplastic syndrome
- Blast: Malignancy transformation (CML AML)
- **Myelodysplastic Syndrome:** Chronic myeloid cytopenia → AML. aging most significant RF due to mutation in stem cells. > M/F 5Q Sd in Females. Cytopenia in at least 1 cell line. **Dx:** BM biopsy **Tx:** Transplant + supportive care (specially older patients)