5/11/26 Mainstream Monday with @CPSolvers

"One life, so many dreams" ***Case Presenter****: Xiaoyun (@)* ***Case Discussants****: Maddy (@MadellenaC) & Seeme (@youucantsee_me)*

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

Scribing (Lera)

CC: 69M admitted with worsening depression and suicidal attempt [Seroquel overdose].

HPI: Consult for **persistent uptrending leukocytosis** [WBC 15-20].

ROS (-): fever, chills, sore throat, CP / abdominal pain, SOB.

PMH:
COPD
DM on insulin
Colon cancer s/p hemicolectomy + CTX 2 y ago [currently in remission]

Meds:
Clonazepam
Duloxetine
Fluoxetine
Aspirin
Atorvastatin
Glargine
Tiotropium

Fam Hx: —

Social Hx: Has cats w/ reported recent scratches.

Health-Related Behaviors: former smoker.

Allergies: —

Vitals: unremarkable
Exam: **Gen**: unremarkable, chest port implanted [no redness]
HEENT: no LAD, no icterus
CV: nl **Pulm**: nl **Abd**: nl
Extremities/skin: no edema, no rashes

Notable Labs & Imaging:
Imaging 2 y ago and 6 mo ago: splenomegaly
CXR: nl

Hematology:
WBC: 20 [bl nl 6 mo ago, **2 weeks ago - WBC** 21]
Diff automatic: 67% N [ANC 13.4] with left shift [6% bands, 5% metamyelocytes, 9% myelocytes], basophilia
Hgb: 14.4 MCV: 87 Plt: 135

Chemistry:
CMP nl UA: nl ESR, CRP: nl
TSH: nl Vit D: low **Vit B12**: 925 [high]
BCx: negative

PBS: leukocytosis with immature precursors, basophilia, leukoerythroblastosis, mild thrombocytopenia
Flow: no significant blast population or monoclonal B cell, decreased CD4/CD8 ratio
FISH: + BCR::ABL! fusion and Philadelphia rearrangement

BM Bx: trilineage hematopoiesis, myeloid hyperplasia, left shift, blasts < 1%
Cytogenetics: chromosome 9 and 22 translocation

Dx: CML [chronic phase]

Problem Representation: A 69 y/o gentleman with Hx of chronic accidentally discovered splenomegaly presents with subacute persistent neutrophil predominant leukocytosis with L shift, basophilia and B12 hypervitaminosis. FISH + for BCR::ABL1 fusion.

Teaching Points (Varsha <3)

- **Elevated cell line - Monoclonal (malignancy) Vs Polyclonal (reactive)**
- **Compare with baseline/ time course/ look out for potential triggers**
- **leukocytosis: differential**
- **Neutrophils: Infection/ Ischemia Vs Lymphocytosis: leukemia Lymphoma**
- **Left shift - implies more immature cell lines +**
- **Leukemia - Acute/ Chronic; Myeloid and Lymphoid lines**
- **CML - BCR - ABL fusion +, associated with basophilia and Splenomegaly**

- **Presence of any implanted foreign body, catheters, IV lines, drug ports) - look out for local signs of infection- Local site swabs/ blood cultures as needed**