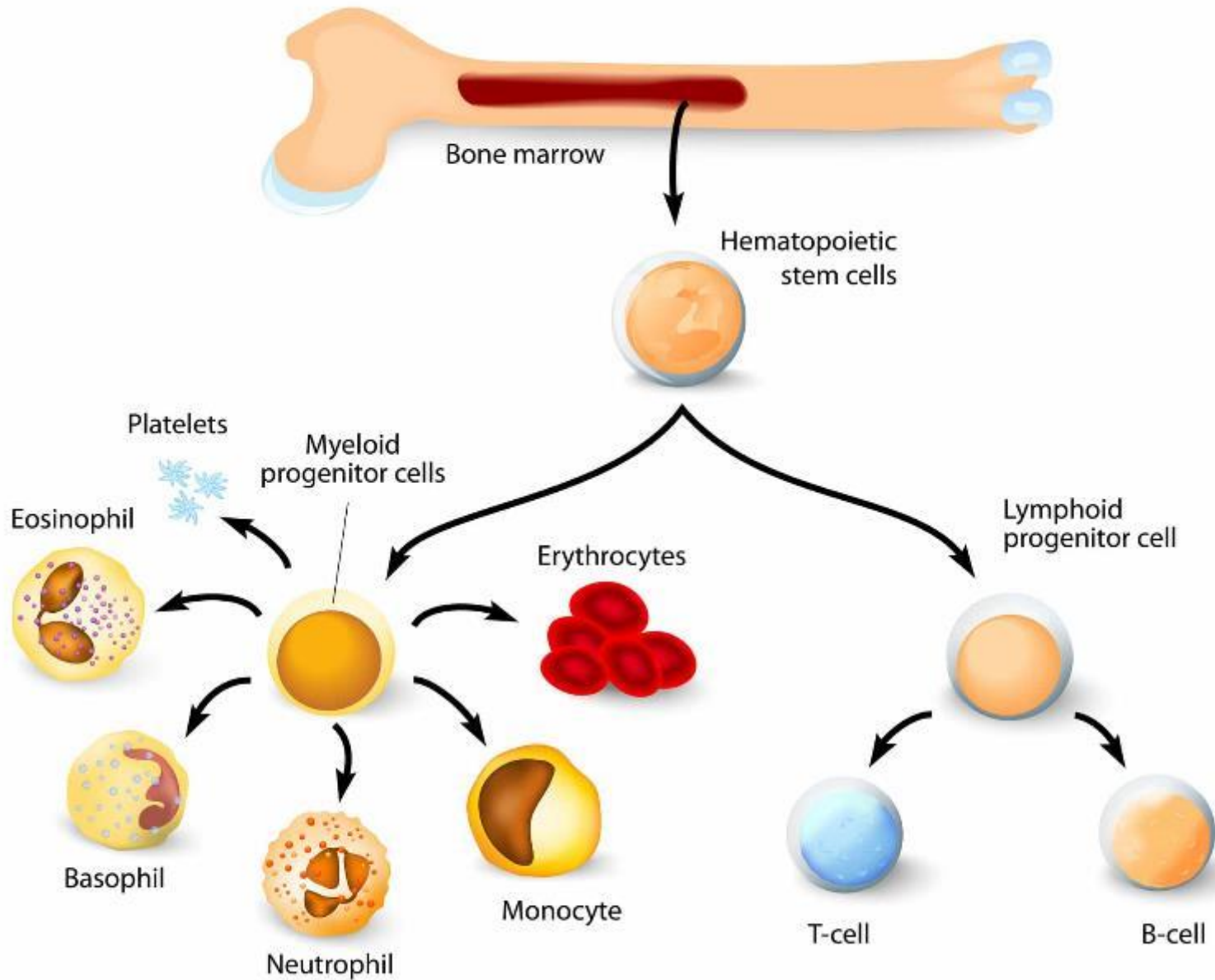


Glitch in the System

How to recognize signs of Acute Leukemia
for the PCP

Alexandria Salois, MSN, APRN, AOCNP, BMTCTN
University of Louisville Physicians
Blood Cancers, Cellular Therapeutics, and Transplant Program



- AML is characterized by “blast” or immature cells in the marrow effecting the myeloid line of cell differentiation
- Accounts for 80% of acute leukemia's in adults and 15-20% in children
- Genetic vs. Environmental Factors
- Disease progression from MDS, CML

Acute Myeloid Leukemia

- Symptoms reflecting Anemia and Thrombocytopenia
- Headaches
- Gum Hyperplasia
- Infections
- Weight loss/ loss of appetite
- Potential Fever
- May have mild splenomegaly or hepatomegaly
- Possible bone discomfort
- Leukemia cutis

AML Clinical Presentation

- Anemia and Thrombocytopenia nearly always present
- White Blood cell count might be variable
- ANC might typically be close to zero
- Peripheral blasts present in blood
- Elevated LDH, uric acid

Lab Findings

- Depends on how severe symptoms and lab values
- Peripheral blood for flow cytometry

What do you do?

- Typically involves an initial hospital stay of about 3-4 weeks for their “ induction” and that is typically 7+3 if good performance status and organ function intact
- If elderly or bad performance status will proceed with an outpatient induction
- Based on genetics resulting from bone marrow determines next steps (ie. Transplant)

AML Treatment

- APL will still effect myeloid line, just farther down in differentiation process
- Presentation is similar to AML but WBC count typically close to normal, patient with a greater likelihood of coagulopathy issues
- PML–RARA, t(15;17)
- If patient survives initial treatment, most curable variant of leukemia

APL (Subtype of AML)

- ALL is characterized by immature lymphocytes or progenitor cells of B or T cell lineage
- Genetic vs. Environmental Factors
- Typically effects younger population, only 20% in adults of all leukemia's

Acute Lymphocytic/Lymphoblas tic Leukemia

- Symptoms of anemia (pallor, fatigue, lethargy), older population might have chest pain, dyspnea, and lightheadedness
- Symptoms of thrombocytopenia (bruising, bleeding)
- Hepatomegaly, lymphadenopathy
- Bone or joint pain
- Other signs of disease advancement
- “B symptoms”: night sweats, weight loss, fever

ALL Clinical Presentation

- Anemia, thrombocytopenia, and neutropenia
- Variable level of peripheral blasts
- If T-cell in origin might have coagulopathy issues and present with renal issues
- Possible high WBC count
- Elevated LDH, uric acid

Lab Findings

- Depends on how severe symptoms and lab values
- Peripheral blood for flow cytometry

What do you do?

- Age, performance status, organ function can determine treatment
- AYA Regimen (CALGB10403)
- HyperCVAD
- CNS Treatment will be separated from systemic treatment
- Philadelphia Positive
- Further genetics obtained for bone marrow determines need to transplant

ALL Treatment

- Effects both cell differentiation lines
- Possible symptoms of AML and ALL
- VERY difficult to treat

Mixed Phenotype Acute Leukemia

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