Alterations in Blood Formation and Hemostasis

Part 5 Case Study

Case

- 1/01 Seen by MD for routine post-bone marrow TX w IV Amphotericin B and IV Gamma globulin
- Mom noted this 14 y.o male had several days of inc. resp. rate w/ some distress, fatigue, 1 day non-productive cough. Pt c/o chest pain, l shoulder pain w deep inspiration. Other hx negative.

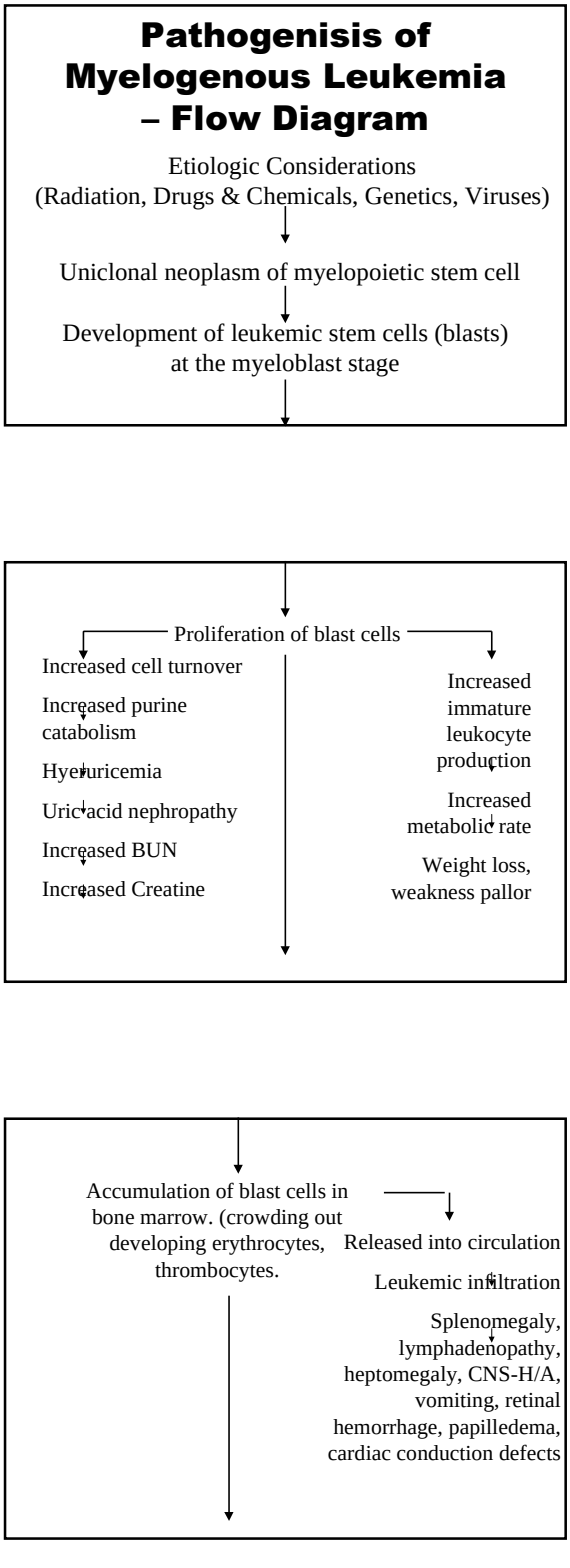
- Exam: thin male in NAD. Vs 38, 110, 30, 100/50. Alopecia, dec. R breath sounds, bilateral basilar rales.
- PMH 7/99 Previously healthy male presented w recurrent URI. Exam-mild distress, tachycardia, tachypnea, pallor, multiple ecchymotic areas, dry mucous membranes, lymphadenopathy. C/o mouth ulcers and bleeding gums, fatigue unrelated to activity. Pain in shoulders. knees,mediastinum, Recent epistaxia and difficulty w hemostasis.

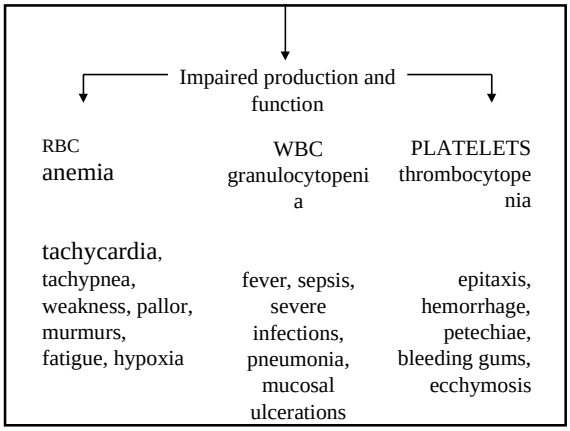
- Labs-normochromic, normocytisc anemia, thrombocytopenia, leukopenia. BM aspirate-hypercellular marrow w > 60% myeloblasts and Auer rods.
- Past tx-total body irradiation, systemic chemotherapy in prep for BM transplant from mother. BMT 9/99 routine post-BMT course returned home in 2 mos. Maintained on immunosuppressive therapies and electrolytes.

- 1/01-hospital course- IV rehydration. CXR-bilateral infiltrates. Labs-anemic, thrombocytopenic; WBC differential-normal WBC, polys high, bands nl, lymphs low, monocytes high. Pulse ox 85% on room air. O2 started. BC drawn. NP swabs for viral studies, CMV, sputum cultures. Legionella urine sent. Pt. Desat., O2 inc., IV abx. Bronch-hyperemia w/o edema. R/O RSV. Started stress doses of Solumedrol for immune suppression to tx suspected graft vs. host disease. Continued to decompensate.

- Day 3-CXR-bilateral pleural effusions, cardiomegally
- Day 4-CV unstable, intubated. Rapidly deteriorated.
- Day 5- arrested and died.

Pathogenisis of Myelogenous Leukemia – Flow Diagram




Impaired production and function
RBC
anemia
WBC
granulocytopenia
PLATELETS
thrombocytopenia
tachycardia,
tachypnea, weakness, pallor, murmurs, fatigue, hypoxia
fever, sepsis, severe infections, pneumonia, mucosal ulcerations
epitaxis, hemorrhage, petechiae, bleeding gums, ecchymosis