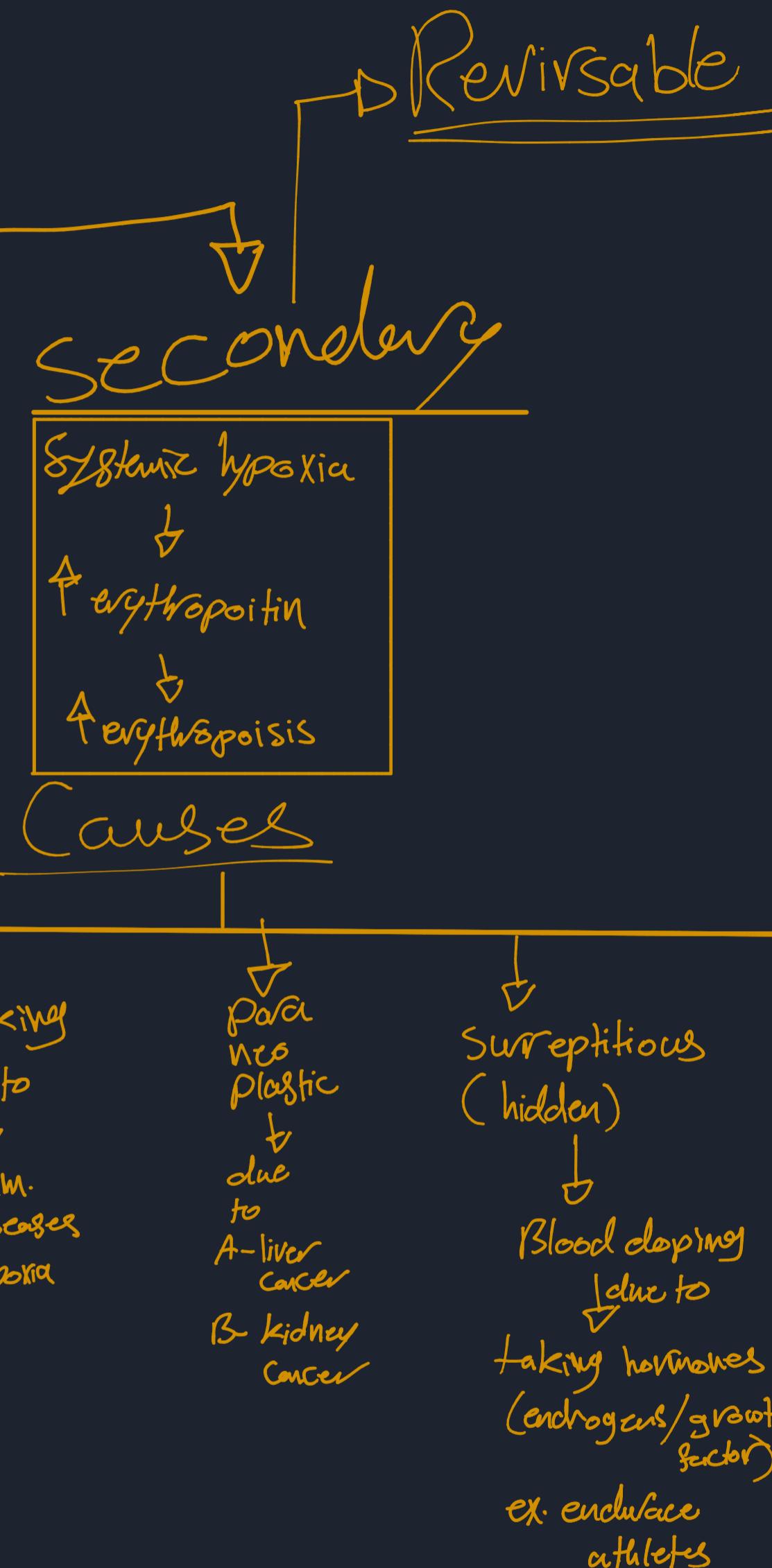
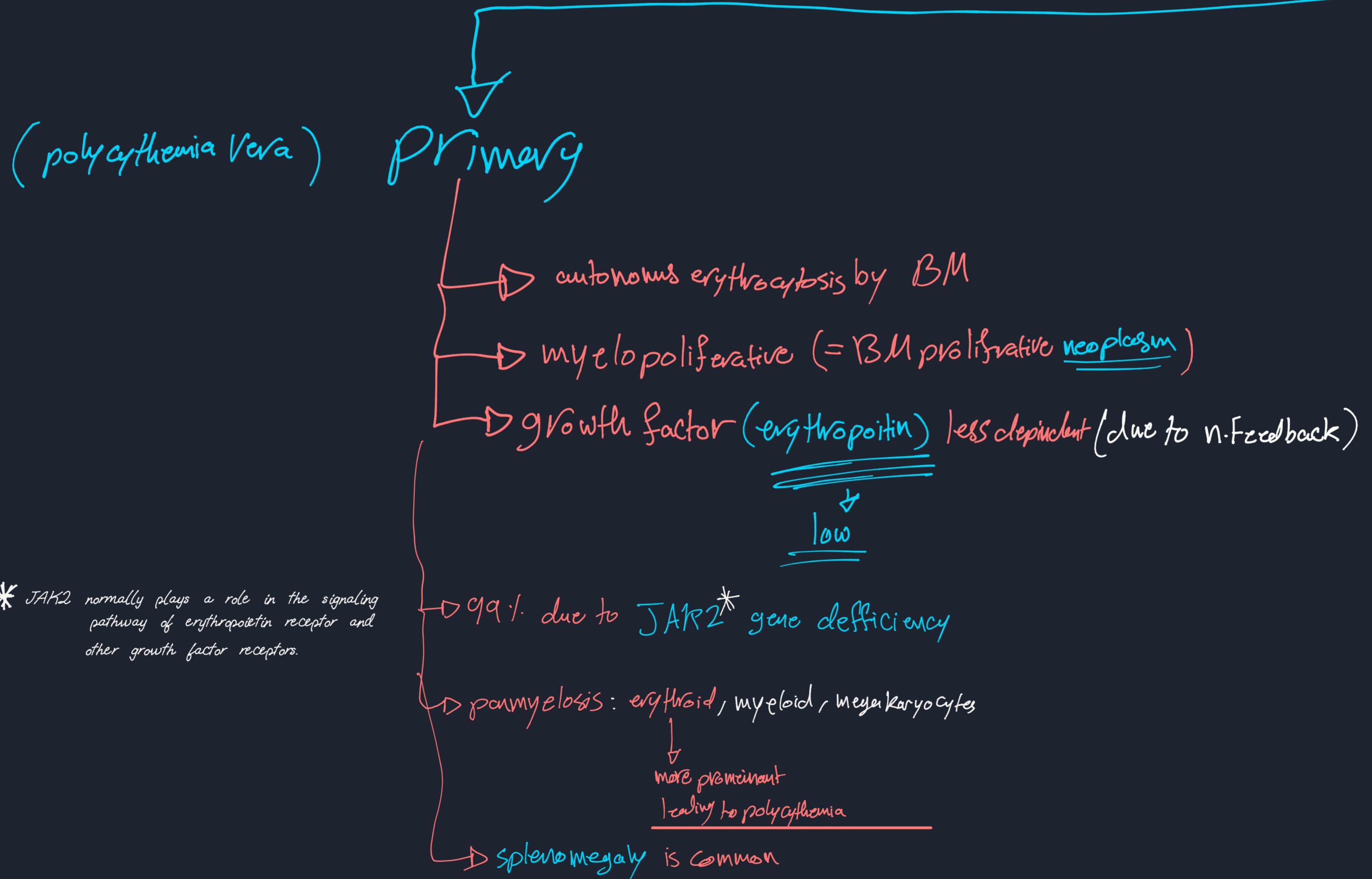


Polycythemia \rightarrow ↑ RBC Mass \rightarrow ↑ RBC No. (unless it was empty)

Relative polycythemia
↓ plasma volume due to
A - water deprivation
B - diuretics
C - severe diarrhea

absolute polycythemia



SYMPTOMS OF POLYCYTHEMIA

- Redness of skin \leftrightarrow if not treated \downarrow blue skin
- Plethora/ cyanosis
 - Headache and dizziness (from hypertension)
 - Slow circulation and hyperviscosity cause cyanosis, blurred vision, tissue ischemia
 - Thrombosis, or bleeding (disturbed function of vWF)

In polycythemia vera: similar symptoms plus:

- itchiness or red rash after shave
- Pruritus (aquagenic) \rightarrow after shave
 - Peptic ulcer
 - Secondary gout (arthritis, kidney stones, tophi)
 - Chronic disease
 - * Spent phase: occurs after an interval of 10 years of symptoms, BM becomes fibrotic, hematopoiesis shifts to spleen
 - Blast crisis: transformation to acute myeloid leukemia (rare)
- * spent phase: ① Anemia \rightarrow ↓ RBC
② leukopenia to WBC
③ Hemopoiesis + platelets

Symptoms:

- Redness of skin \leftrightarrow if not treated \downarrow blue skin
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 - Headache and dizziness (from hypertension)
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 - Thrombosis, or bleeding (disturbed function of vWF)

laboratory findings

LABORATORY FINDINGS OF POLYCYTHEMIA

must be persistent

- High hemoglobin concentration (>16.5 g/dL in men, 16 in women) and high hematocrit (>49% in men, 48% in women)

- High RBCs count

- These tests might be masked if iron deficiency develops

In polycythemia vera: additional findings:

- Leukocytosis and thrombocytosis are common

- JAK2 mutation *99%* D+ → neoplastic

- Low erythropoietin level

- Hypercellular bone marrow with panmyelosis

Biopsy

fat must be there

laboratory findings

must be persistent

- High hemoglobin concentration (>16.5 g/dL in men, 16 in women) and high hematocrit (>49% in men, 48% in women)

- High RBCs count

- These tests might be masked if iron deficiency develops

جذور الـ وفخاخ وكرمه

* يا أربع الراغبين مخرج عن الحالين

* نسأل الله التوفيق والستر