

# **Myelodysplastický syndrom**

L. Bourková, OKH FN Brno

# Laboratorní nálezy

- morfologické hodnocení:
  - leukocytů, erytrocytů, trombocytů
  - stanovení prstenčitých sideroblastů
  - počet blastů v PK a KD
- charakteristika dysplazie pro rozlišení typů MDS  
*(pozor na správné barvení preparátů – artefakty)*
- cytopenie v krevním obraze  
*(bez dysplastický změn by neměla mít návaznost na MDS)*

# Laboratorní nálezy - PK

## ■ erytrocyty:

anémie, anizocytóza, poikilocytóza, polychromázie, bazofilní tečkování, H.-J. tělíka, Pappenheimerova tělíka, Cabottovy prstence, dysplastické rysy NRBC, ↓ RETIC

## ■ leukocyty:

obvykle ↓NE, hypo/hyper(>5segmentů) - segmentace NE, pseudo-Pelgerova-Huětova anomálie, hypo/hyper/nerovnoměrná-granulace NE, vakuolizace NE, evt. přetrvávající bazofilie cytoplazmy NE, abnormální mono/promonocyty

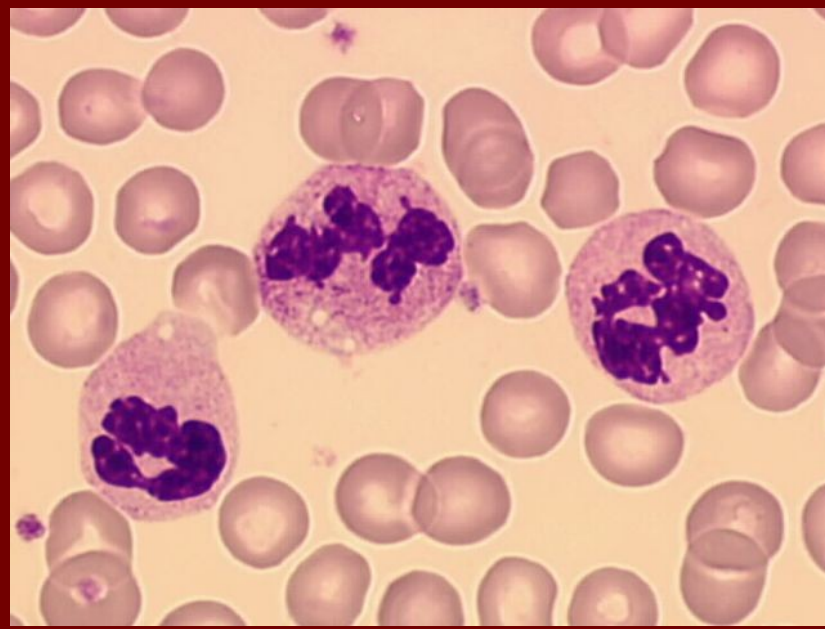
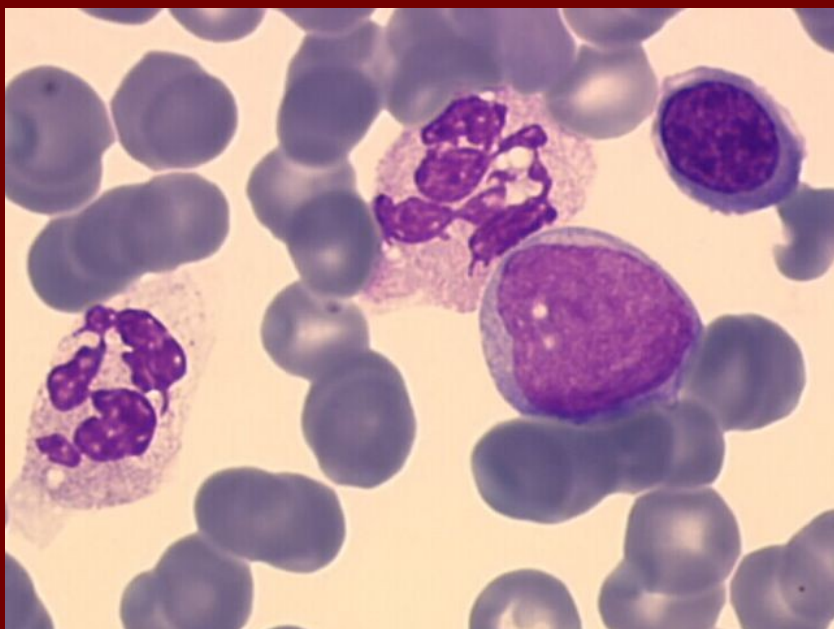
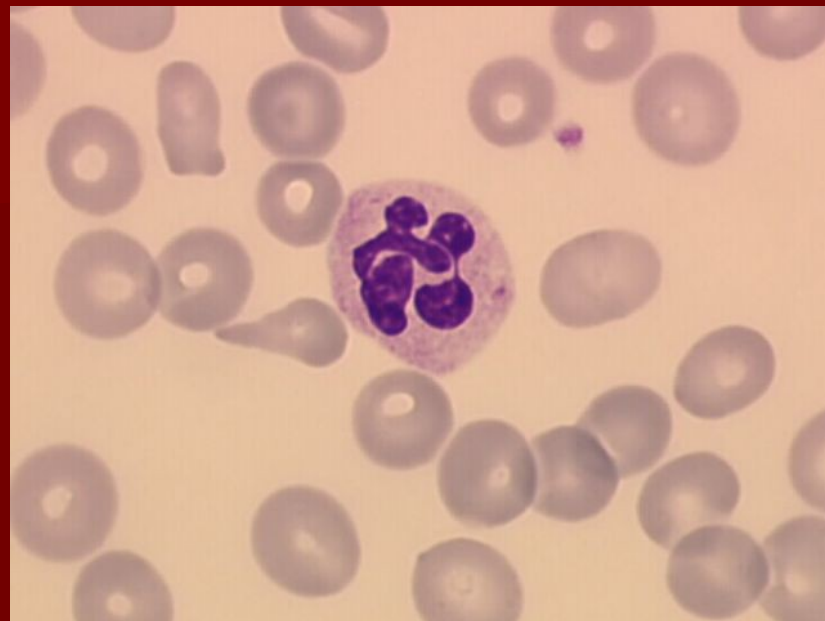
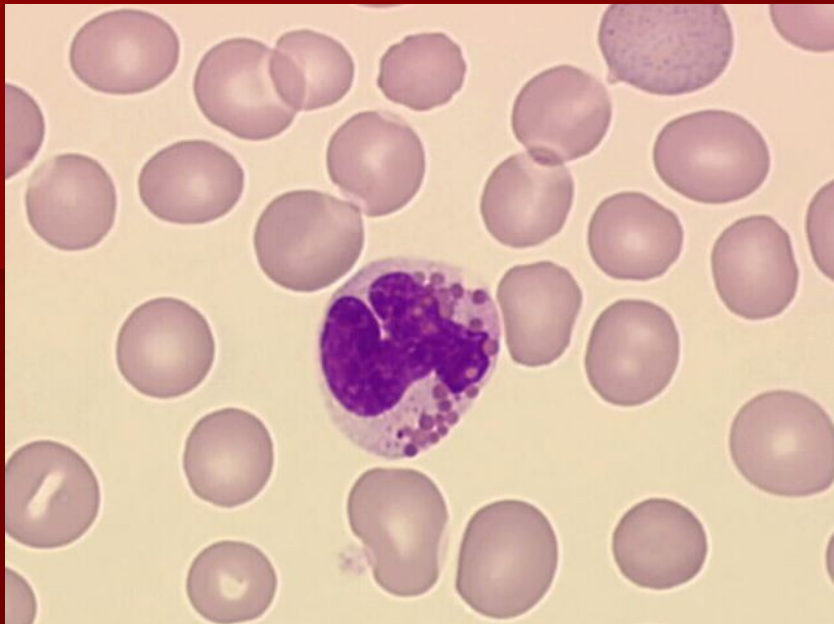
## ■ trombocyty:

většinou ↓PLT, anizocytóza, makrotrombocyty, hypogranulární PLT, fragmenty cytoplazmy MGK, mikro MGK, holá jádra MGK

# Laboratorní nálezy - KD

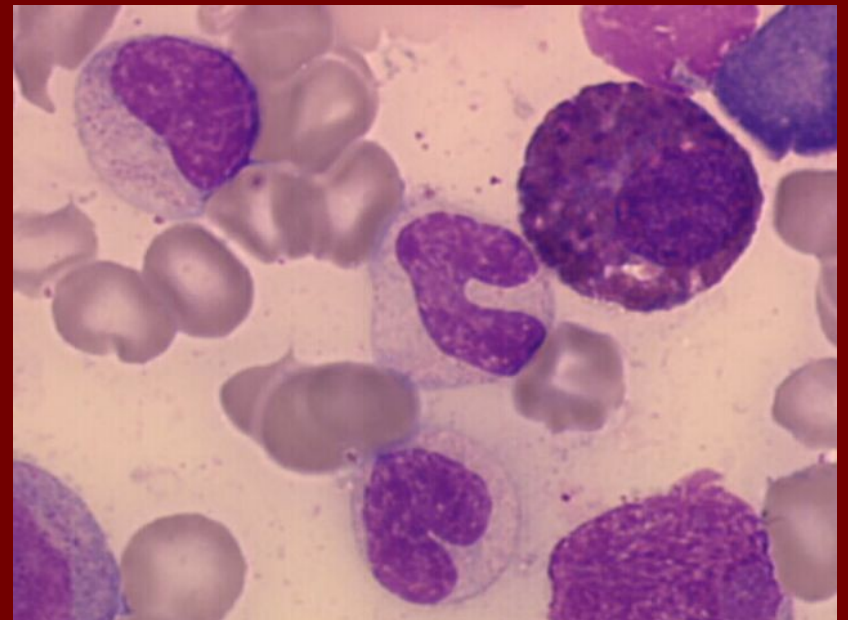
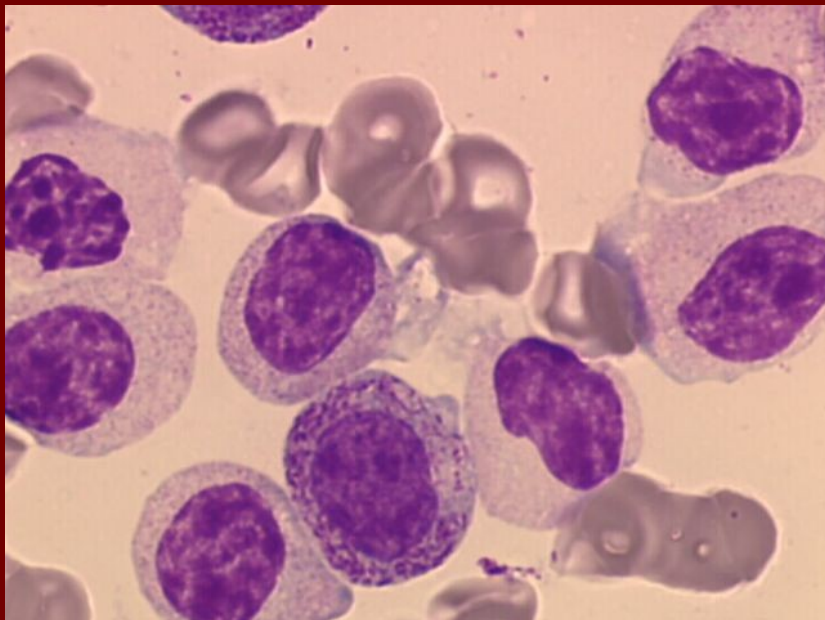
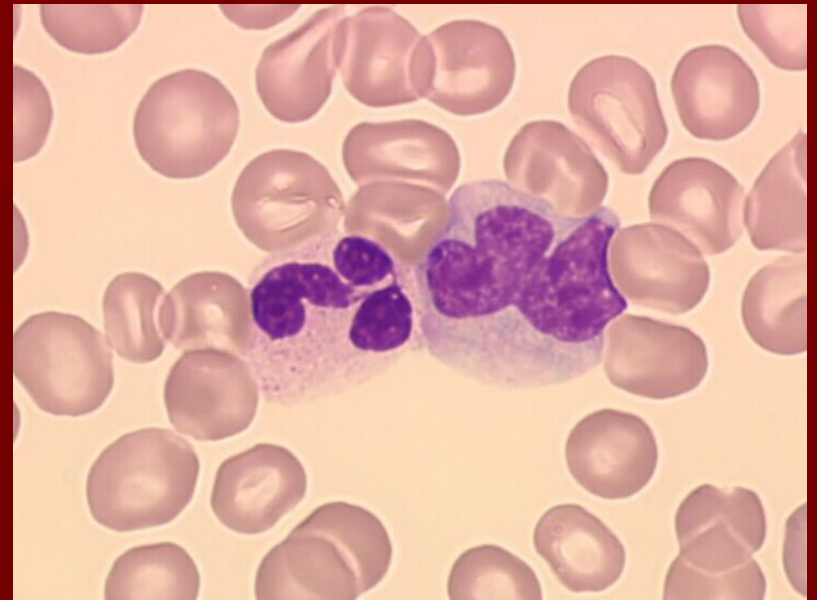
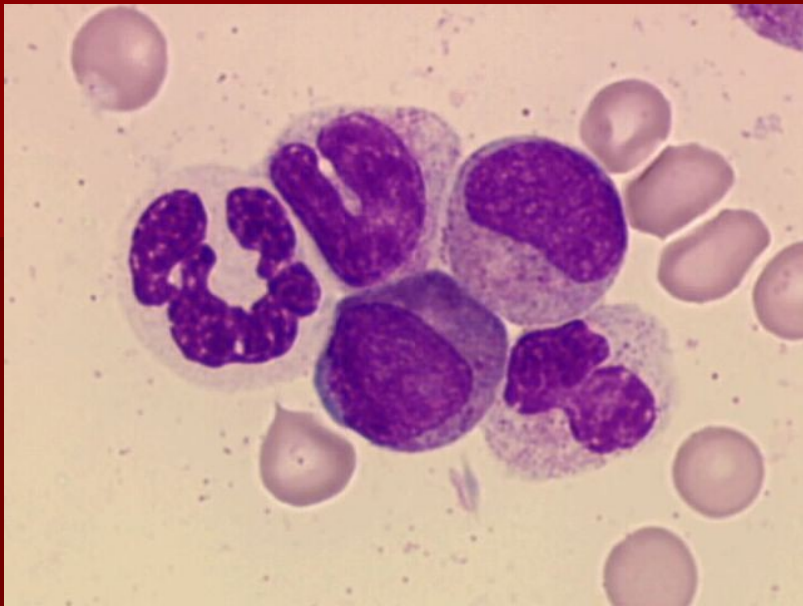
- dyserytropoéza:  
podobné dysplatické změny jako v PK, dále
  - jádro: mezijaderné můstky, karyorexe, vícejadernost, megaloidní rysy, zneokrouhlení jádra
  - cytoplazma: vakuolizace, nerovnoměrná barvitelnost
  - PAS pozitivita
- dysgranulopoéza:  
podobné dysplatické změny jako v PK, dále
  - asynchronie vyžívání jádra a cytoplazmy, Auerovy tyče, pseudo-Chédiakova-Higashiho granula
  - deficit myeloperoxidázy v neutrofilech
- dysmegakaryopoéza:  
mikro/obrovské MGK, hypolobularizace MGK, mnohojadernost MGK, vakuolizace, hypogranulace MGK

# MDS – hypersegmentace, hypogranulace

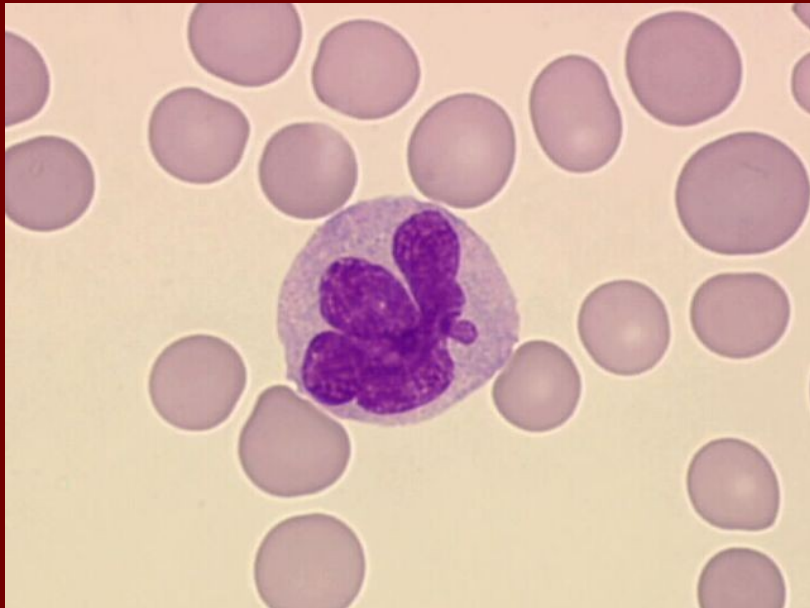
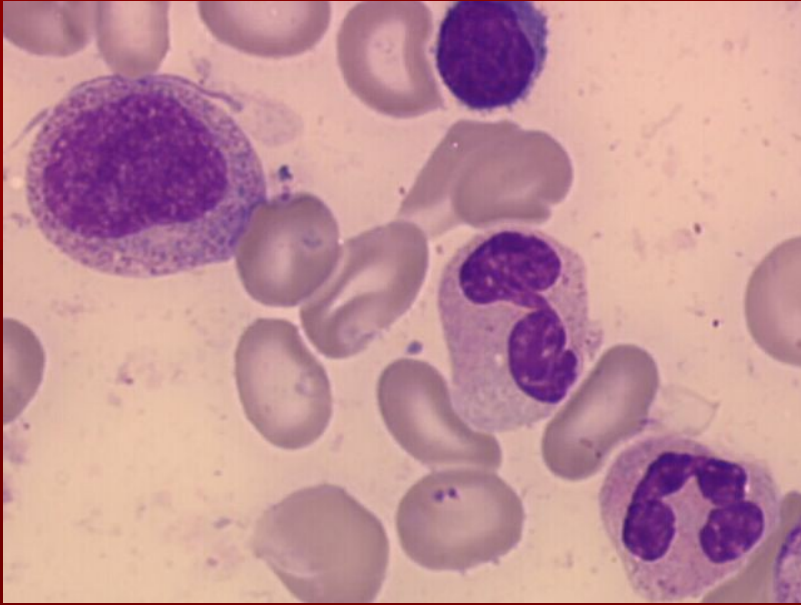




# MDS - hypogranulace

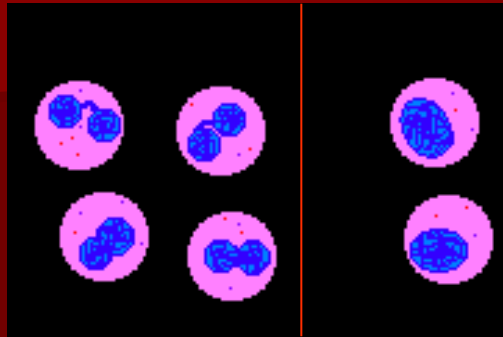


# MDS – hypogranulace, hyposegmentace



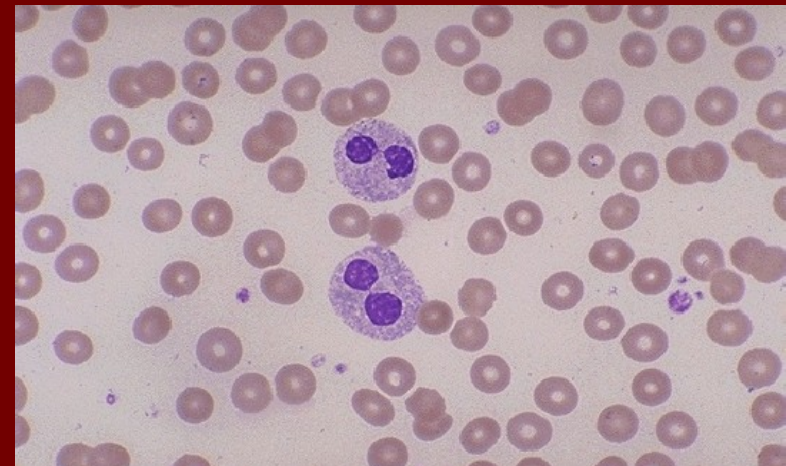
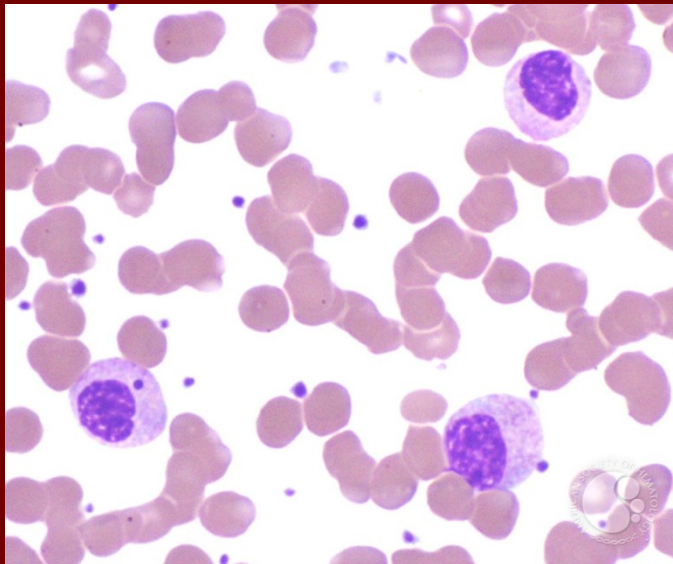
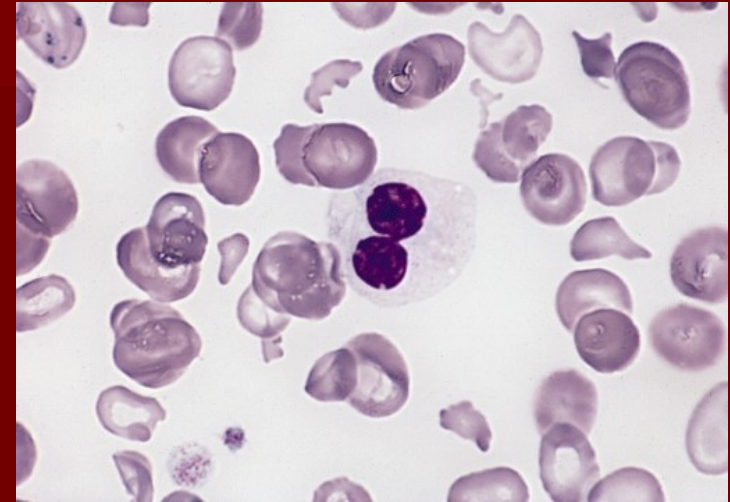


# Pelgerova-Huětova anomálie



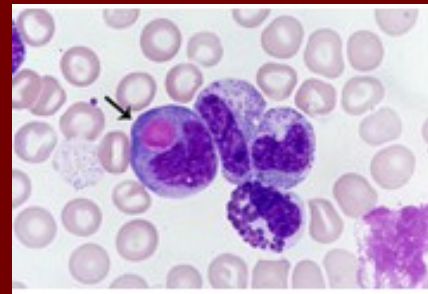
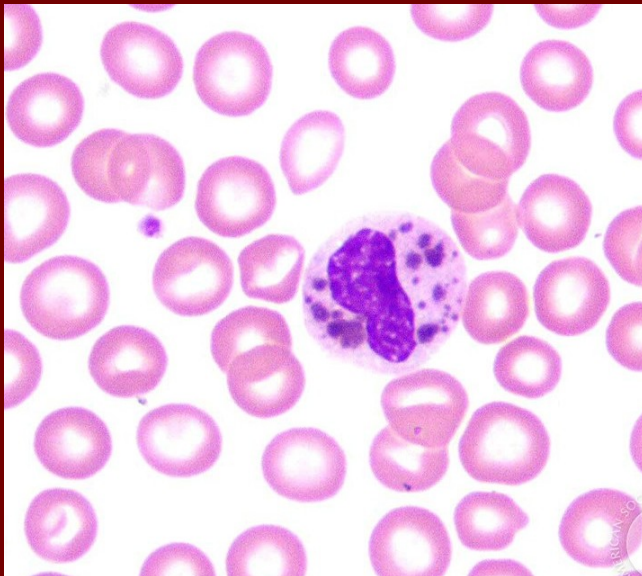
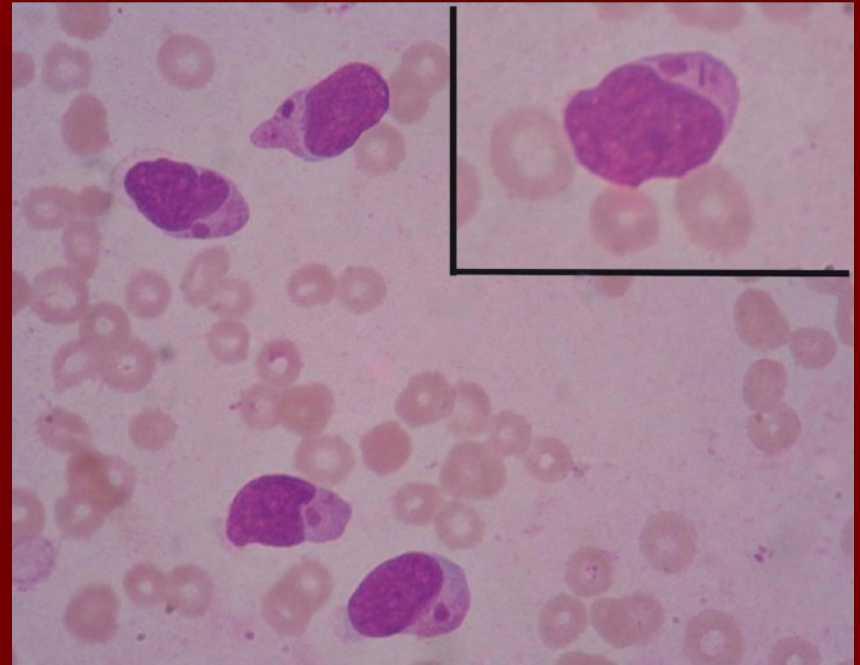
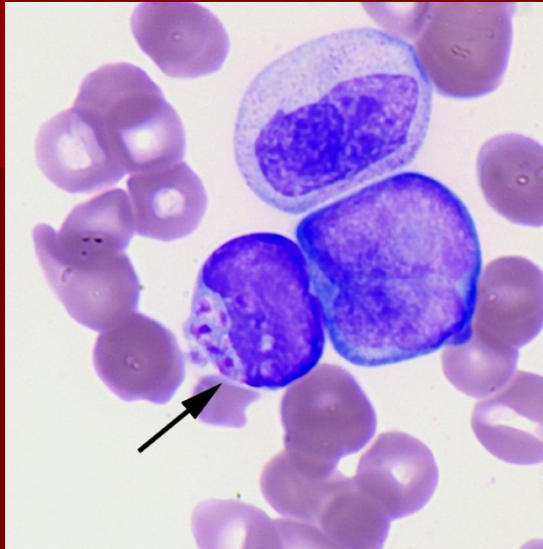
heterozygot

homozygot

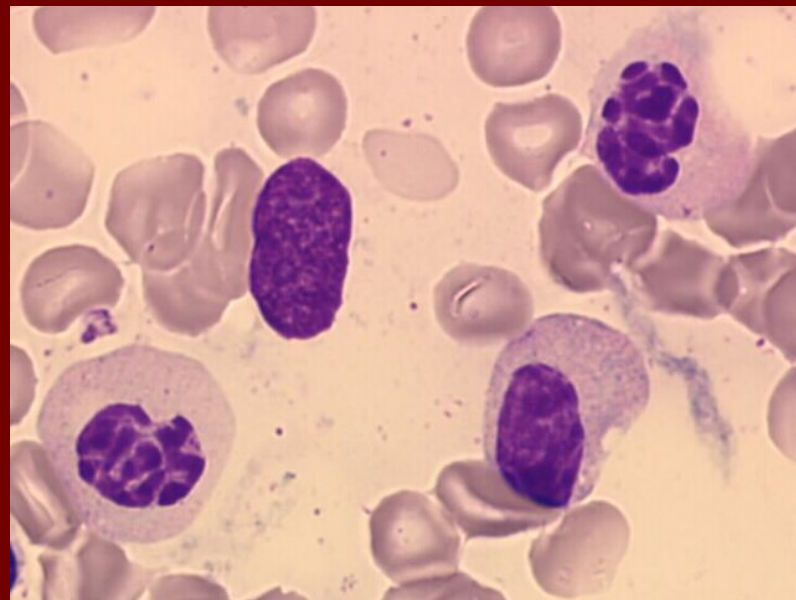
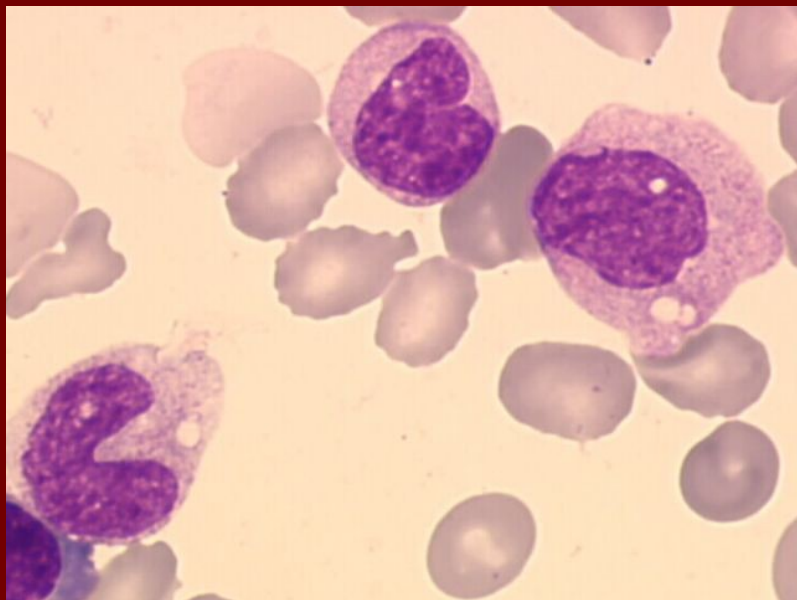
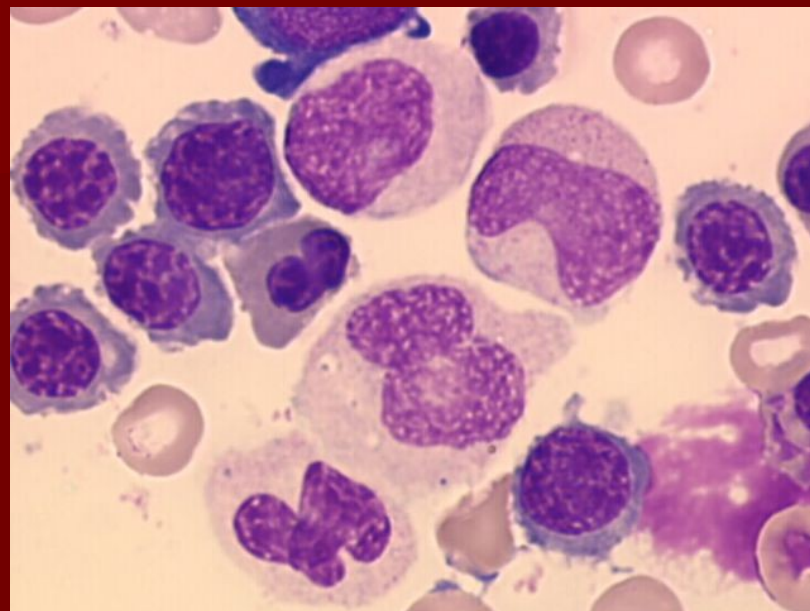




# pseudo-Chédiakova-Higashiho granula

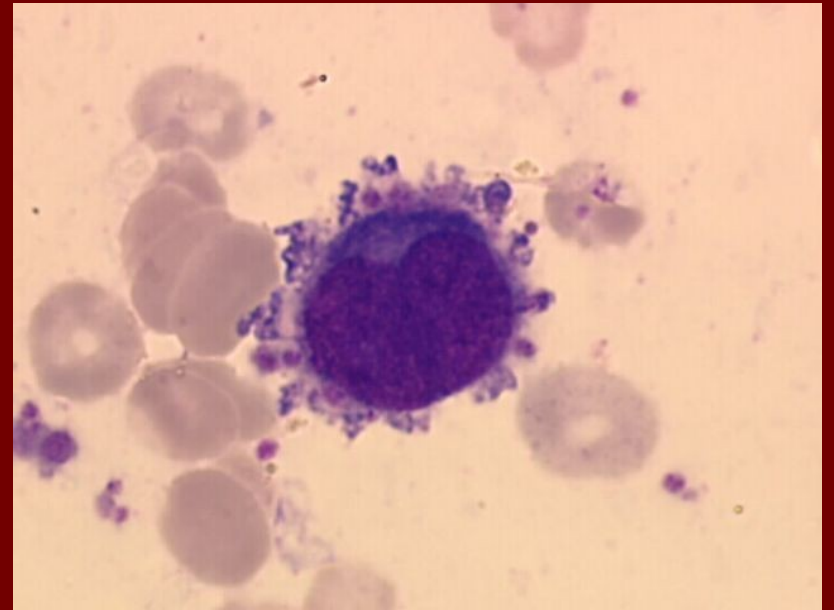
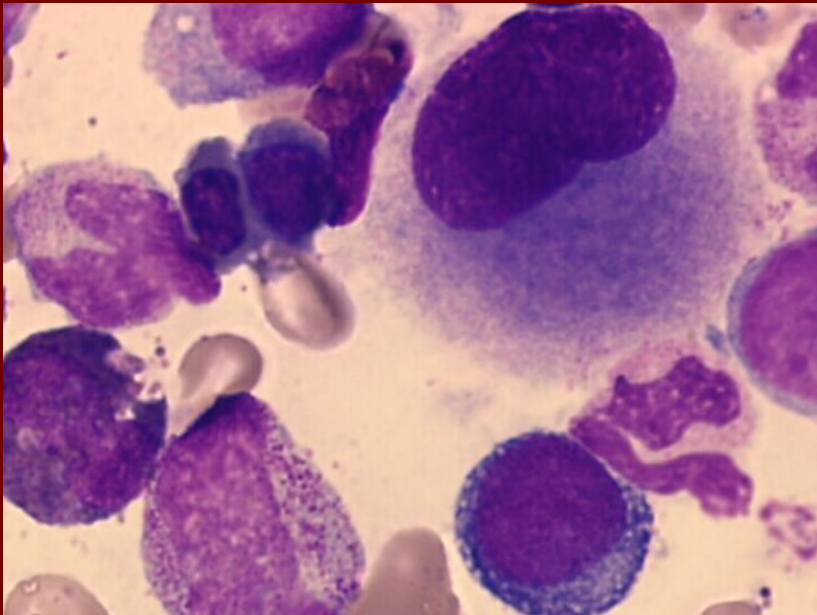
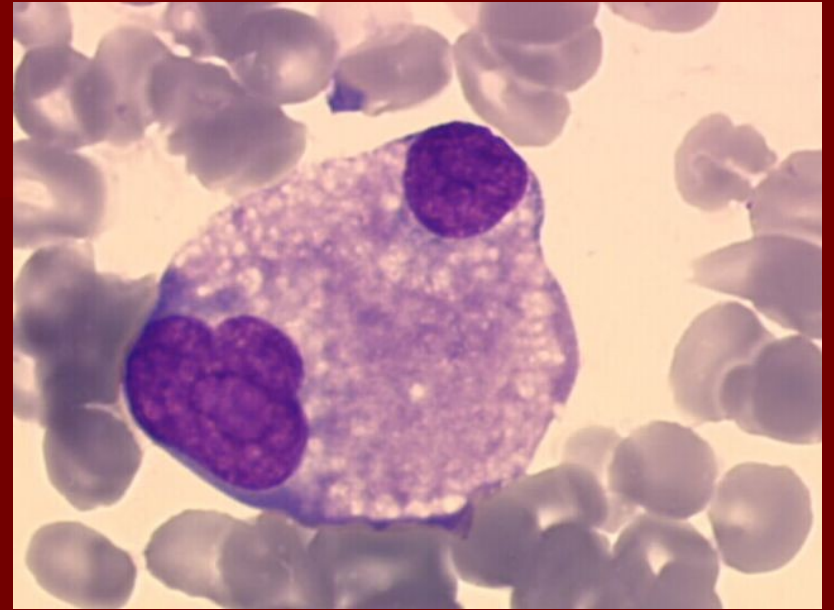
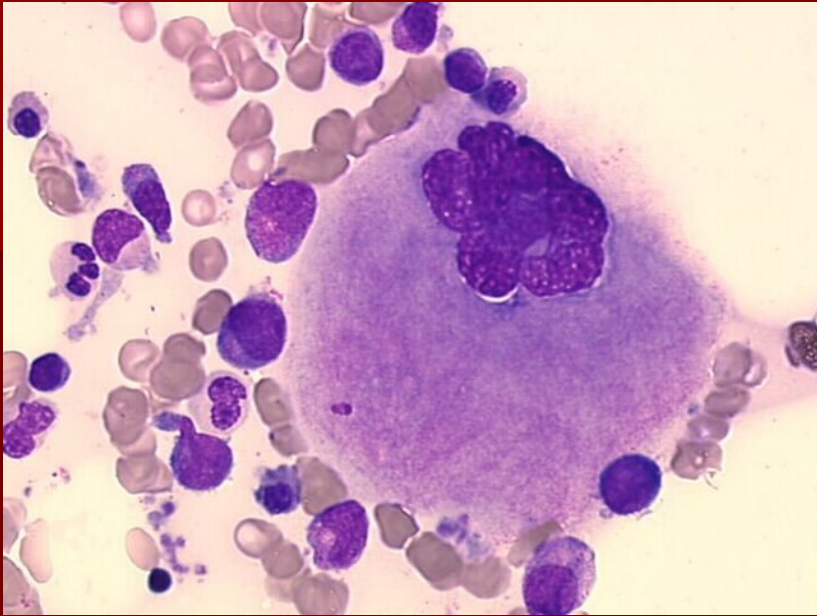


# MDS – hypogranulace, hyposegmentace

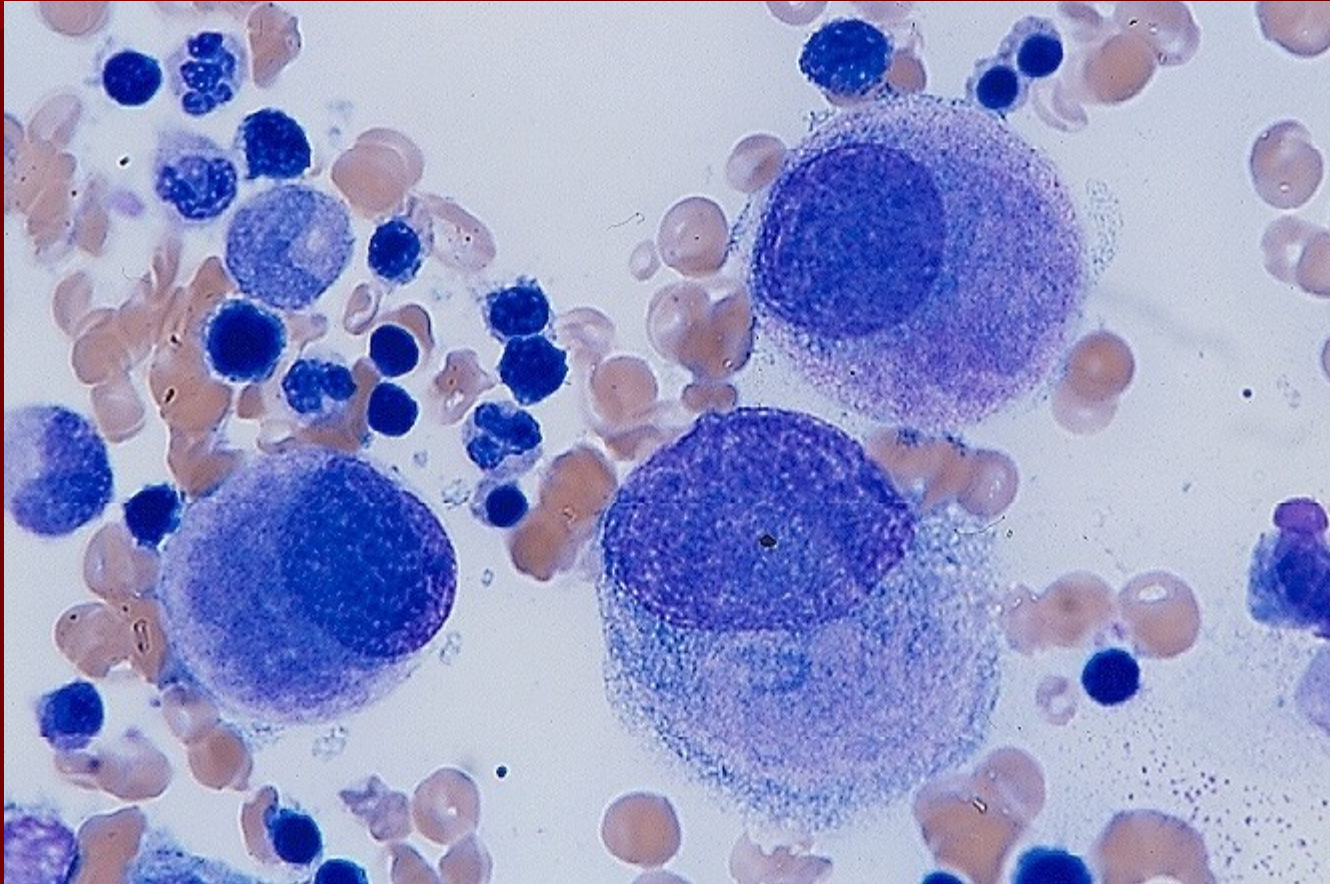




# MDS - megakaryocyty

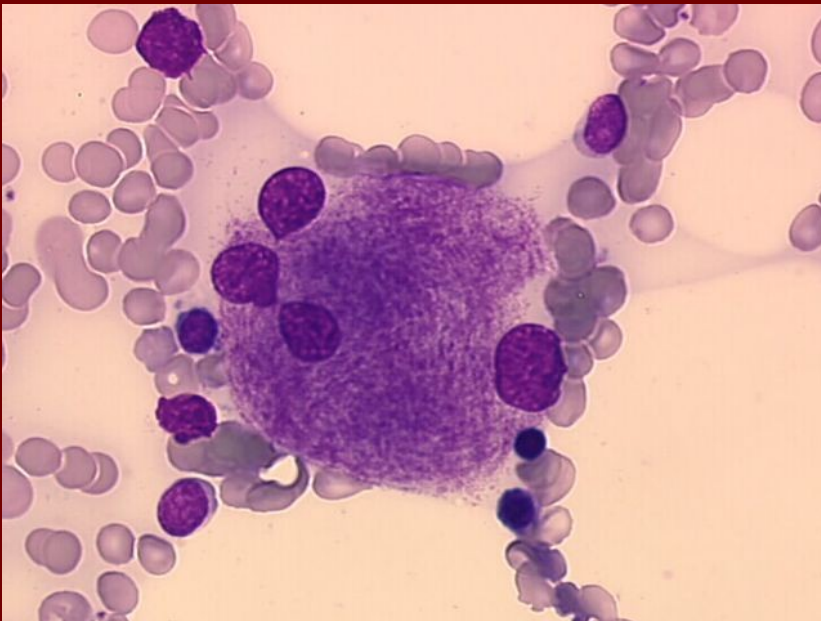
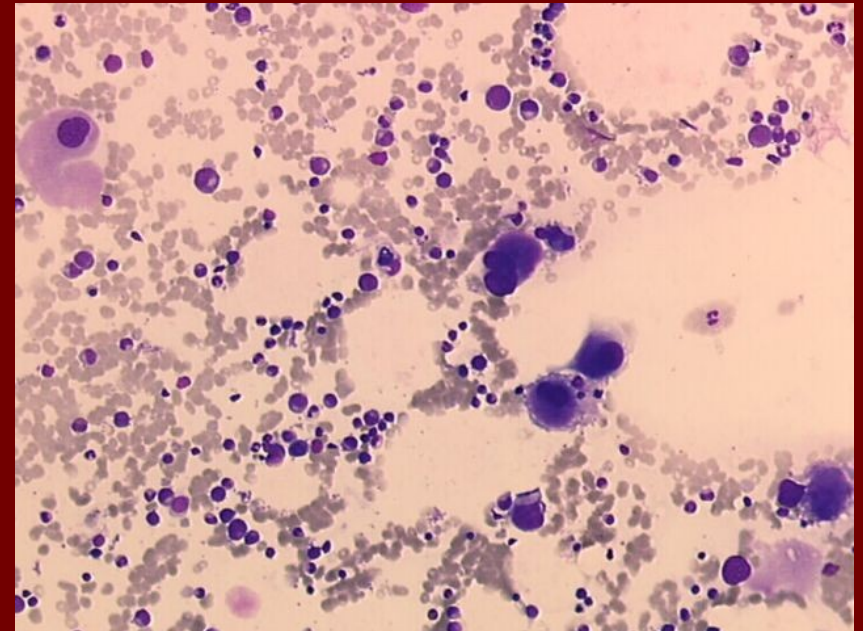


## hypobularizace MGK

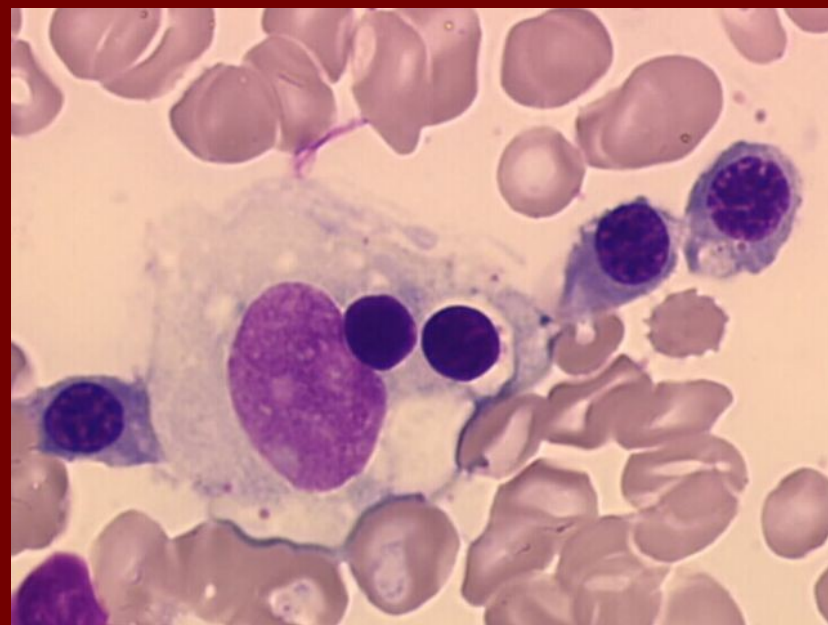
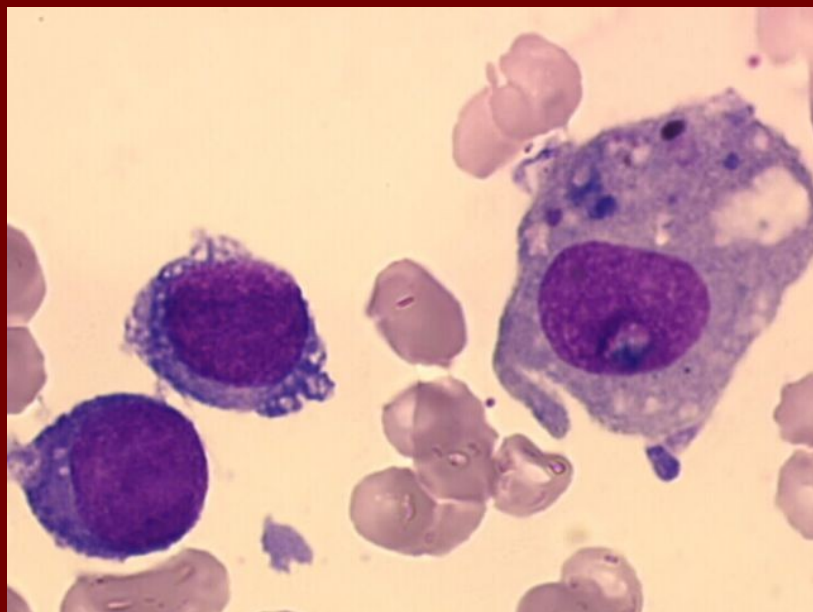
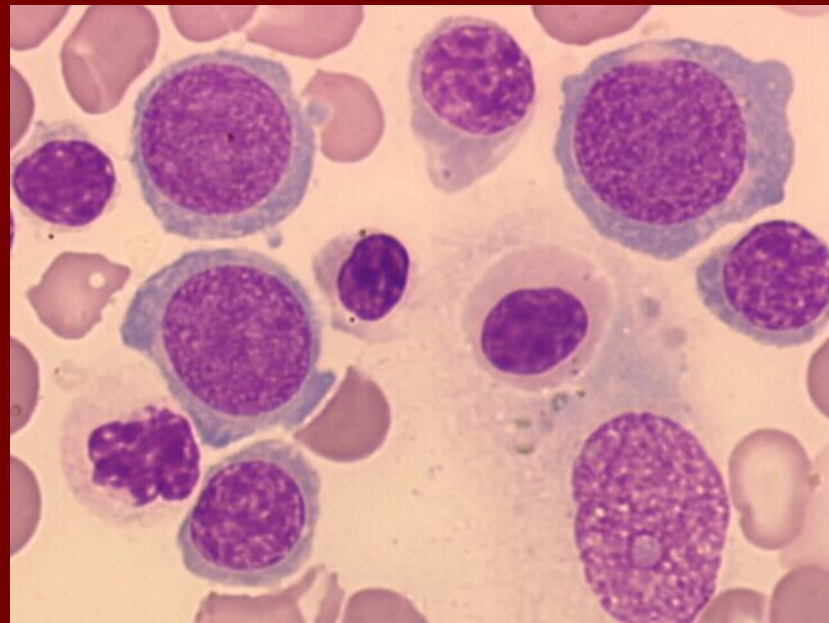
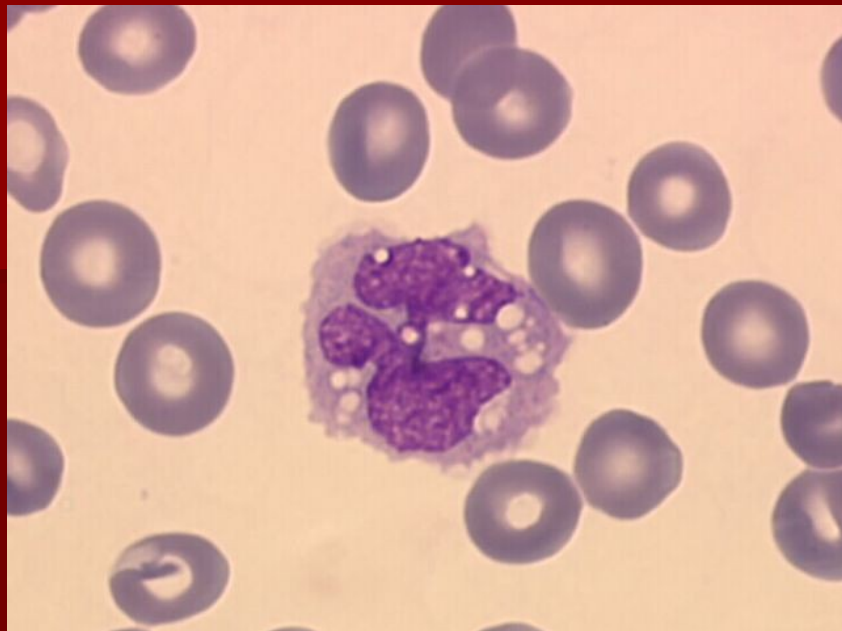




**MDS - megakaryocyty**

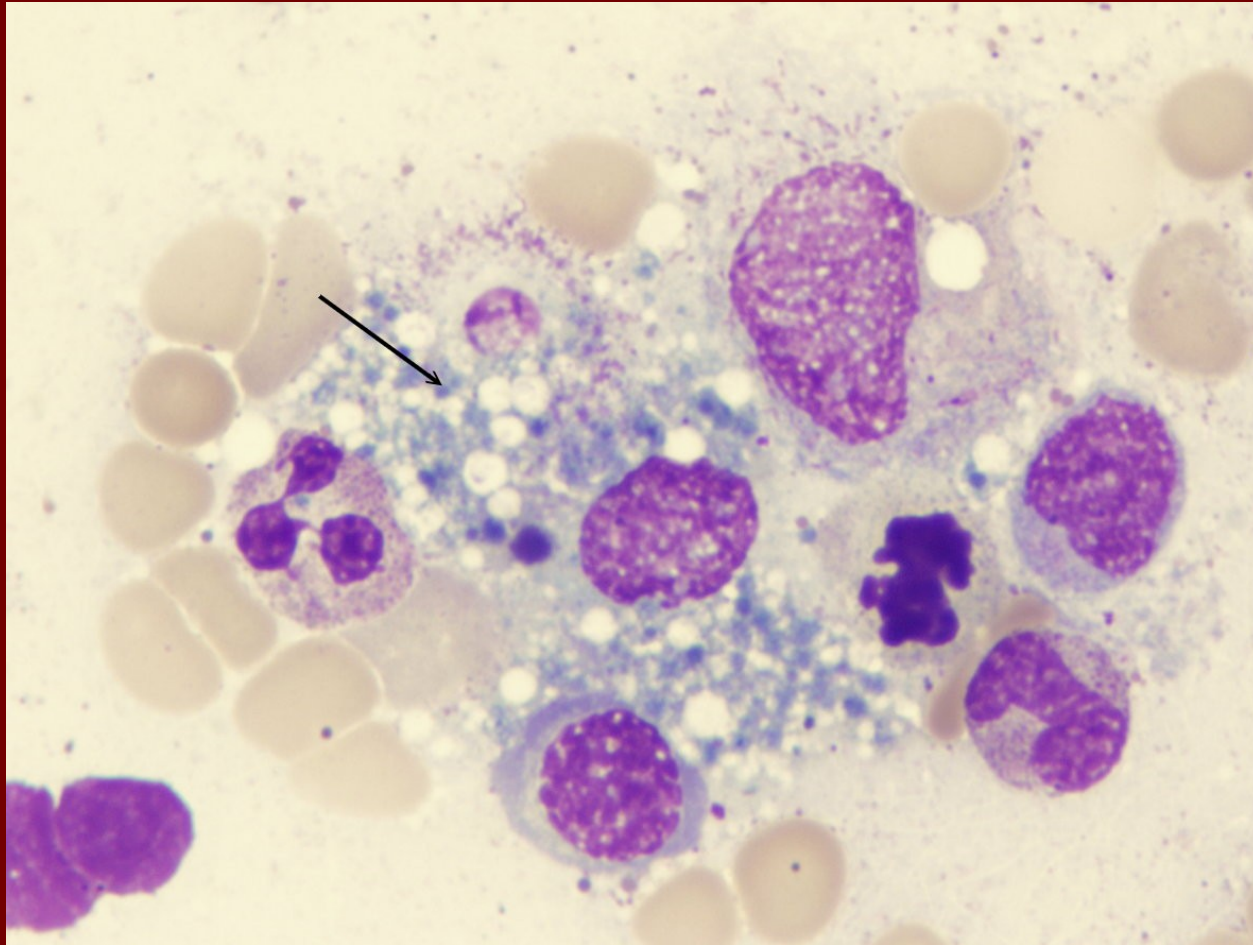


# MDS - makrofág

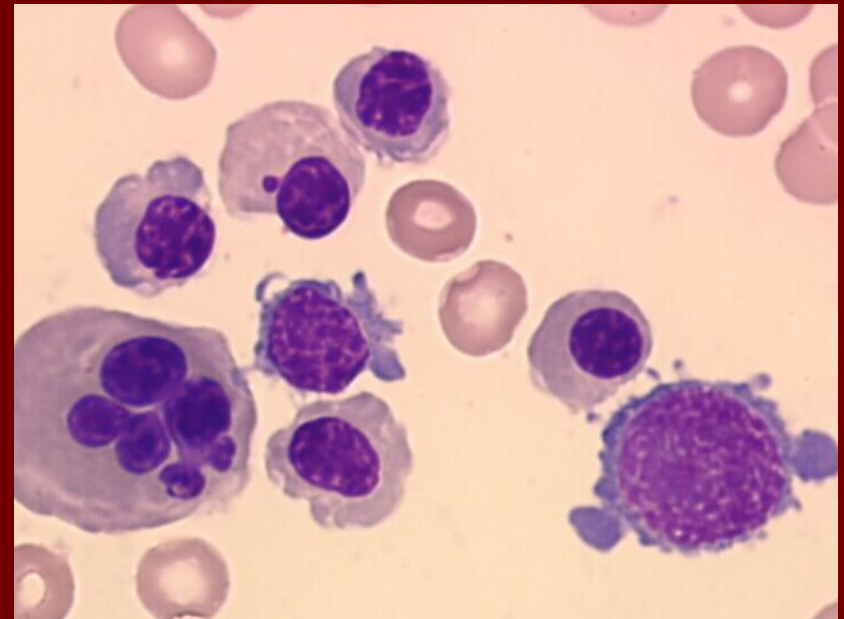
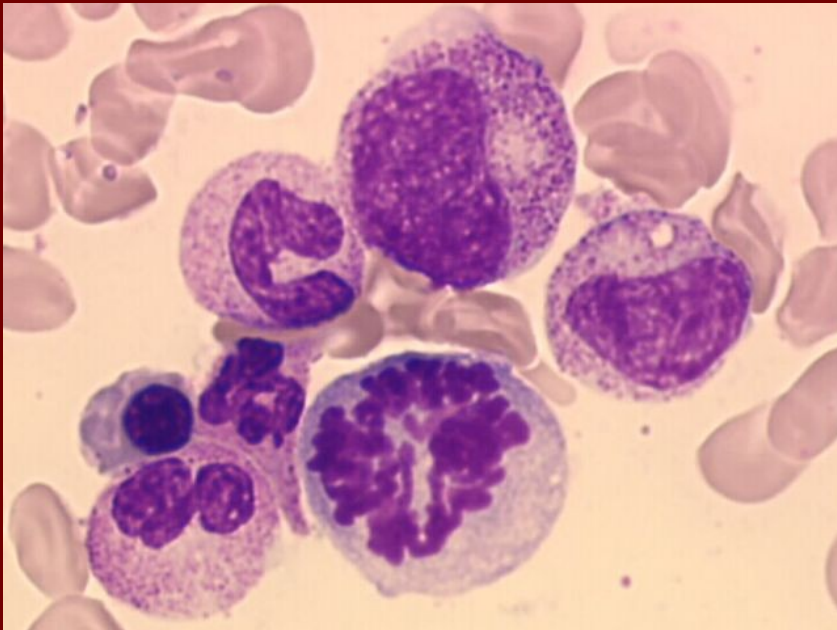
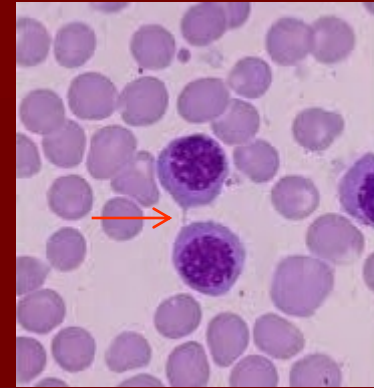
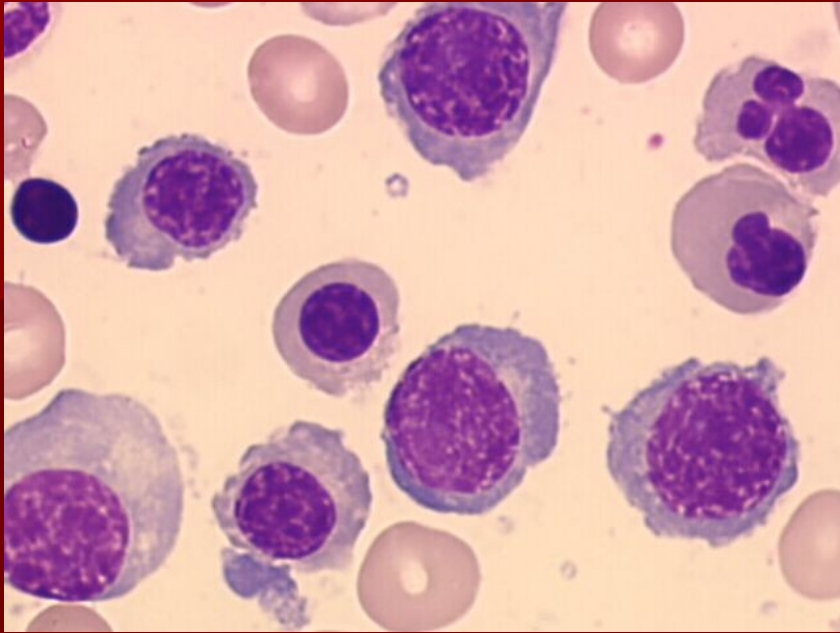




## Kostní dřeň – fagocytující makrofág



## MDS – jaderné erythrocyty





# Dyserythropoéza

