

Značaj hematološkog laboratorija iz liječničkog kuta

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Tečaj trajne edukacije HKMB “Osnove laboratorijske
hematologije”
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Crtica iz povijesti

- 1658. Jan Swammerdam – otkriće eritrocita
- 1874. Louis-Charles Malassez – izum hemocitometra
- 1953. Wallace Coulter – izum automatskog brojača stanica



Suradnja liječnika i laboratorija



Marin et al. *Crit Care* (2021) 25:101
<https://doi.org/10.1186/s13054-021-03532-6>

Critical Care

LETTER

Open Access

D-dimer specificity and clinical context: an old unlearned story

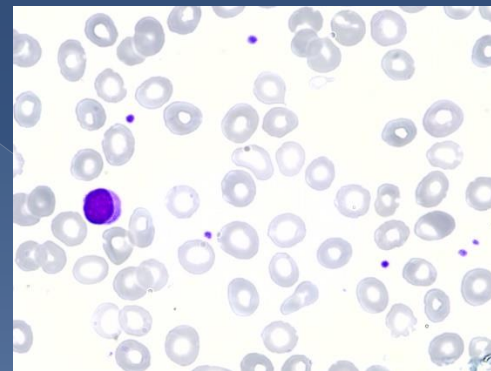
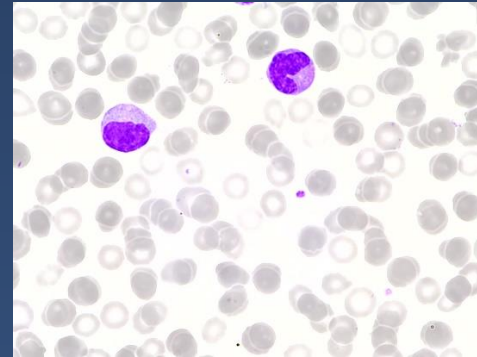


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Anemija

○ Morfološka podjela:

1. Mikrocitna
2. Makrocitna
3. Normocitna



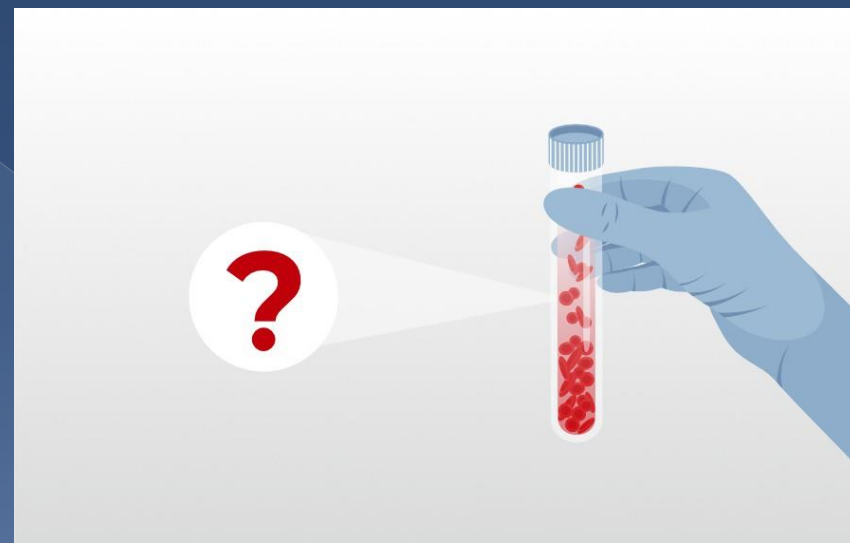
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Anemija

- Patofiziološka podjela:
 1. Hipoproliferativne
 2. Hemolitičke
 3. Anemije zbog gubitka eritrocita krvarenjem

Brzina sedimentacije eritrocita

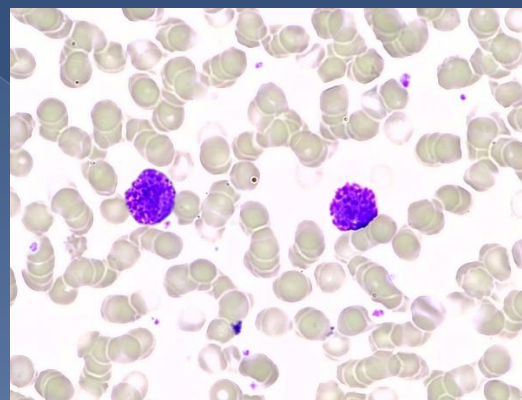
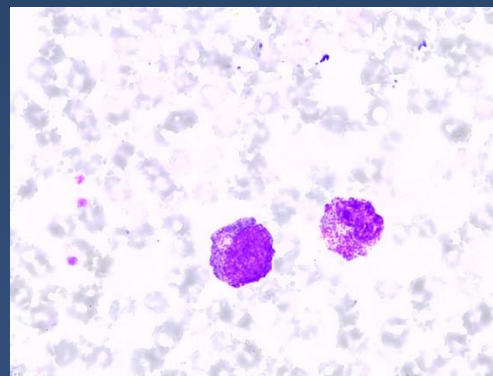
- 1921. Westergren
 1. Upalne bolesti
 2. Plazmastične diskrazije



Leukociti

○ Neutrofilija

1. Infektivne bolesti bakterijske etiologije
2. Kronične mijeloproliferativne neoplazme (KML, MF, KNL)



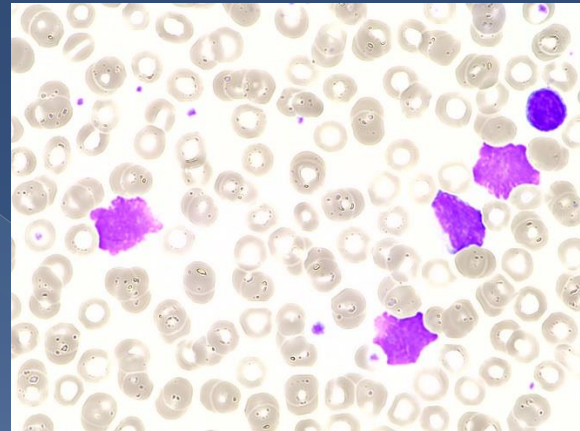
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Leukociti

○ Limfocitoza

1. Virusne infekcije
2. Kronične limfoproliferativne bolesti (KLL, MCL, SMZL)

Gumprechtove sjene



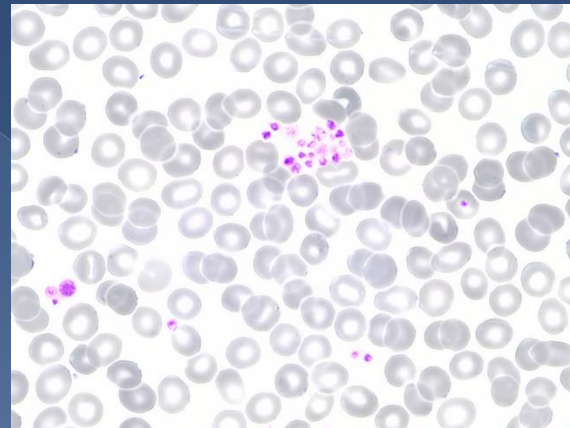
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Trombociti

⦿ Trombocitopenija

1. Pseudotrombocitopenija
2. Imunosna trombocitopenija
3. Heparinom-inducirana trombocitopenija

Pseudotrombocitopenija

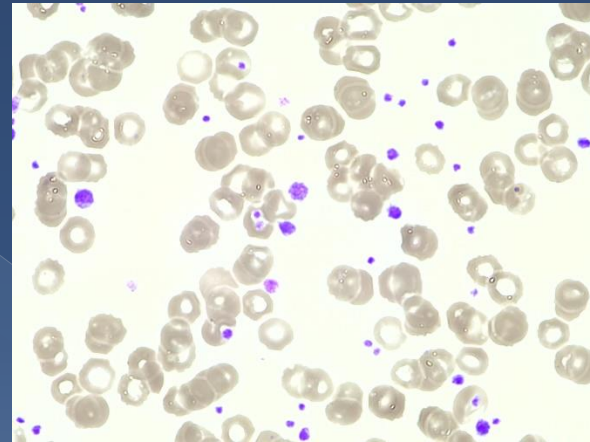


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Trombociti

○ Trombocitoza

1. Reaktivna (upalne bolesti, sideropenična anemija, maligne bolesti)
1. Kronične mijeloproliferativne neoplazme (ET, MF, PRV, KML) i mijelodisplastični sindrom (MDS/MPN s trombocitozom)



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Molekularna hematologija

- Primjer implementacije molekularnih biljega u stratifikaciji rizika i odabiru terapije kod oboljelih od AML-a

Risk Category	Genetic Abnormality
Favorable	t (8;21) (q22;q22.1); <i>RUNX1-RUNX1T1</i> inv (16) (p13.1q22) or t (16;16) (p13.1;q22); <i>CBFB-MYH11</i> Mutated <i>NPM1</i> without <i>FLT3-ITD</i> bZIP in-frame mutated <i>CEBPA</i>
Intermediate	Mutated <i>NPM1</i> with <i>FLT3-ITD</i> Wild-type <i>NPM1</i> with <i>FLT3-ITD</i> t (9;11) (p21.3;q23.3); <i>MLLT3-KMT2A</i> Cytogenetic abnormalities not classified as favorable or adverse
Adverse	t (6;9) (p23;q34.1); <i>DEK-NUP214</i> t (v;11q23.3); <i>KMT2A rearranged</i> t (9;22) (q34.1;q11.2); <i>BCR-ABL1</i> inv(3) (q21.3q26.2) or t (3;3) (q21.3;q26.2); <i>GATA2, MECOM(EVI1)</i> t (3q26.2:v); <i>MECOM (EVI1)-rearranged</i> -5 or del (5q); -7; -17/abn (17p) Complex karyotype, monosomal karyotype Mutated <i>ASXL1, BCOR, EZH2, RUNX1, SF3B1, SRSF2, STAG2, U2AF1, or ZRSR2</i> Mutated <i>TP53</i>

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Hvala na pozornosti

