Blood & Lymphatic Systems

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Results of Class Evals

Positives

games
large group work
group quizzes
fast grading

Negatives

unfair quiz questions
more lectures
less 'figure-it-out' work
move quizzes to Thurs.
less 'extra' material on ppts

The 'Cell'

As we have learned in class thus far, the suffix "**cyte**" refers to cells.

"**Cyte**" is derived from the Greek **τό κύτος**, which means "*container or basket*".

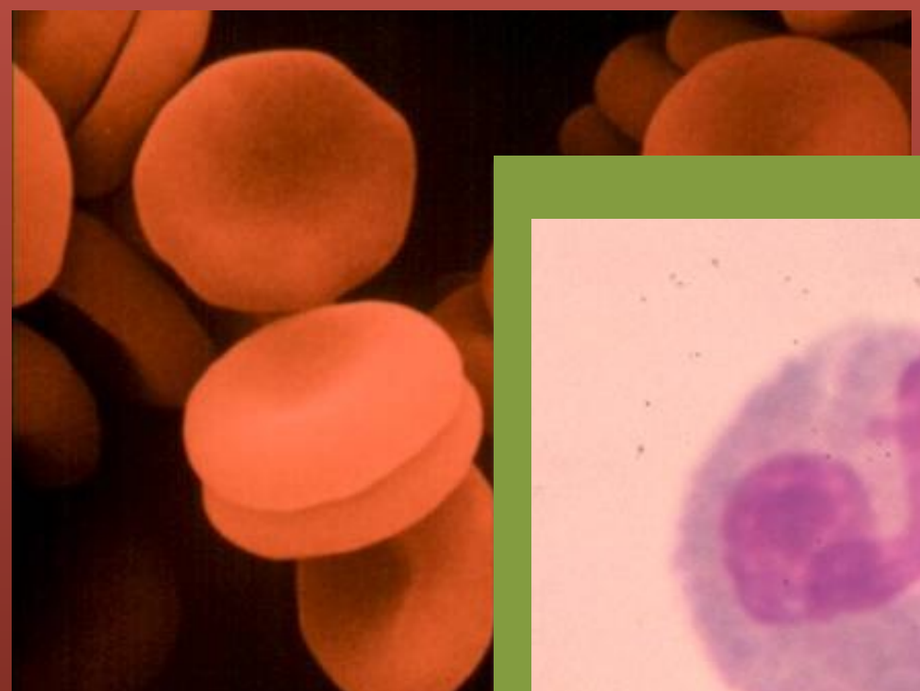
So, simply stated, cells are containers that carry materials throughout the body.

Types of Cells

As you probably already know, there are multiple types of cells in the body, each of which carries different materials.

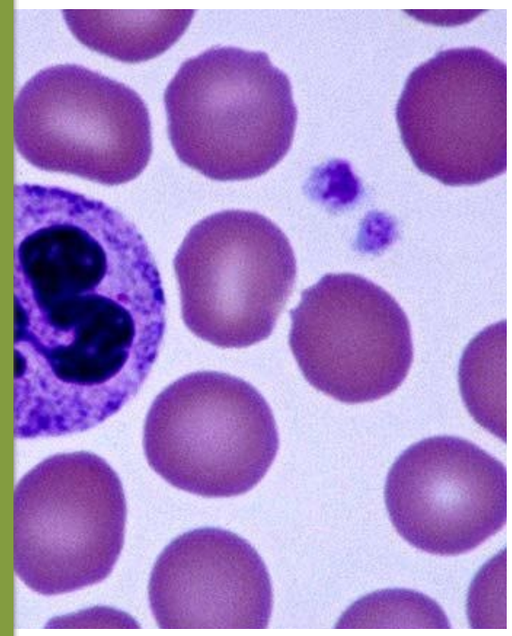
The term for each cell, as with the term 'cyte' are derived from Ancient Greek & Latin and describe a characteristic of the cell.

Types of Cells



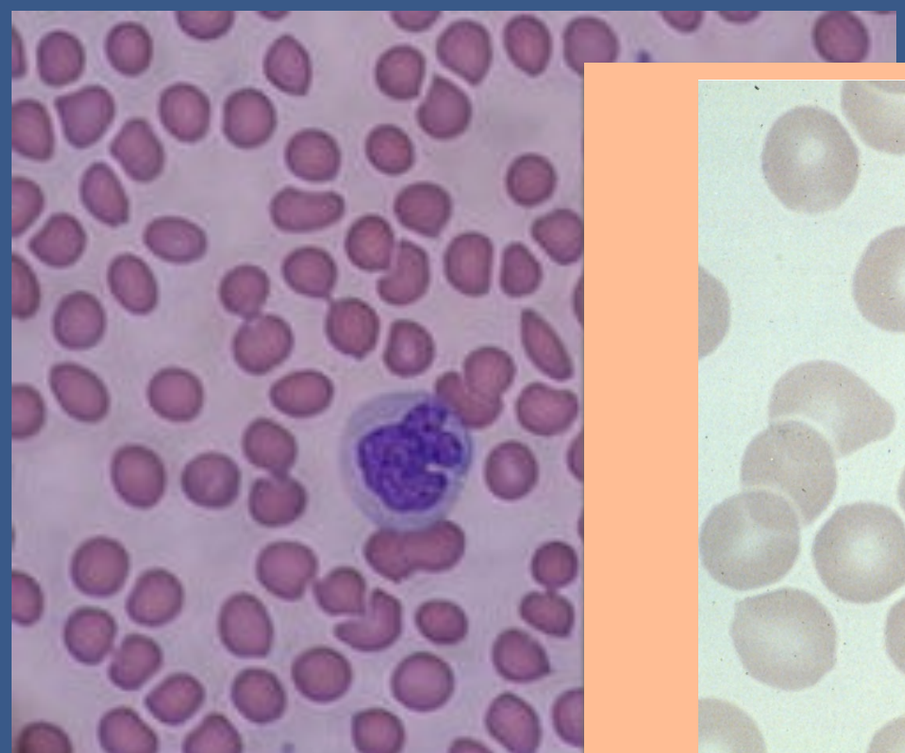
Erthyrocyte
('ερυθρό

Granulocyte = cell c granules
(granulus, i = little grain)

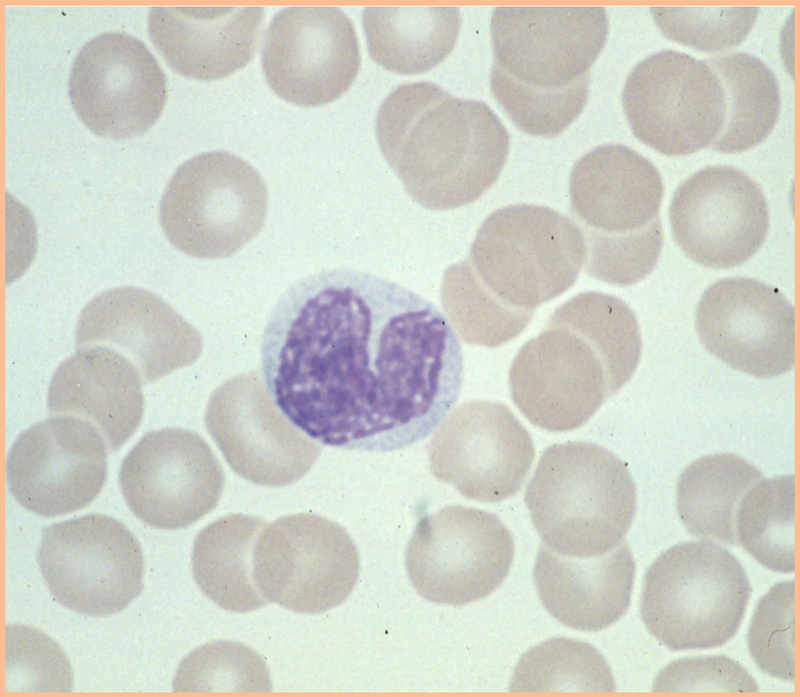


Leukocyte = white cell
(λευκός = white)

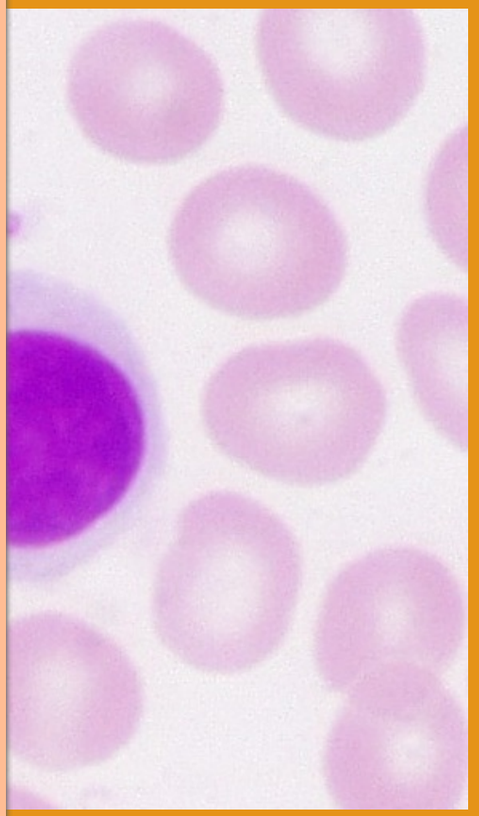
Types of Cells



Agranulocyte = cell
(a + granulu



Monocyte = agranulocytic, phagocytic leukocyte
(μόνος = one, alone)



Lymphocyte =cells involved in immunity
(Lympha, ae = water, clear liquid)

Cells: A Synopsis

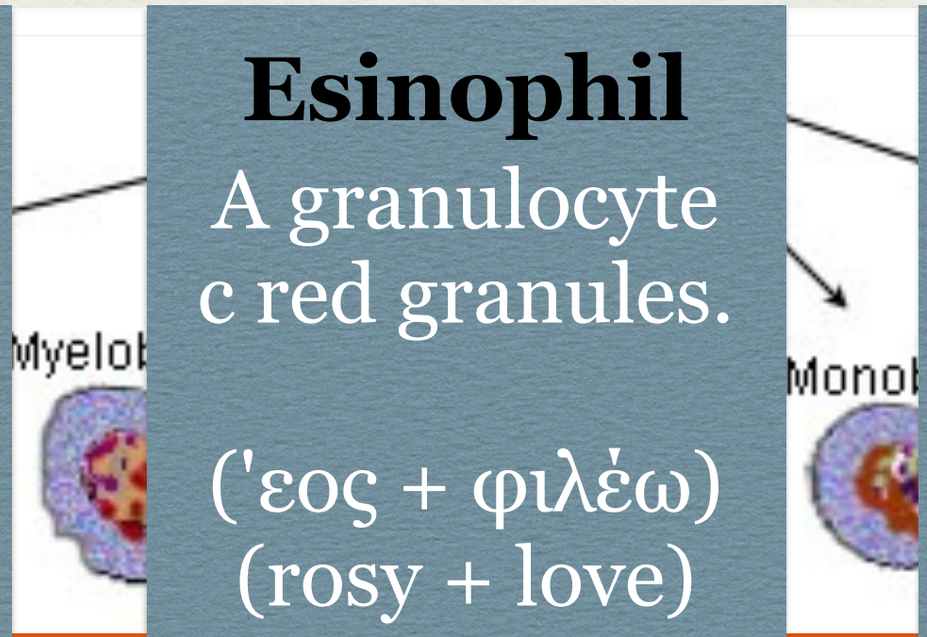
Neutrophil
A granulocyte
c neutral colored
granules.
(neuter + φιλέω)
(neither + love)

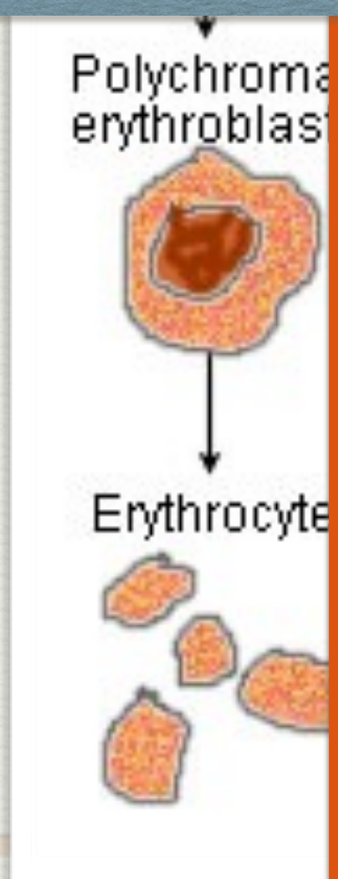
Esinophil
A granulocyte
c red granules.

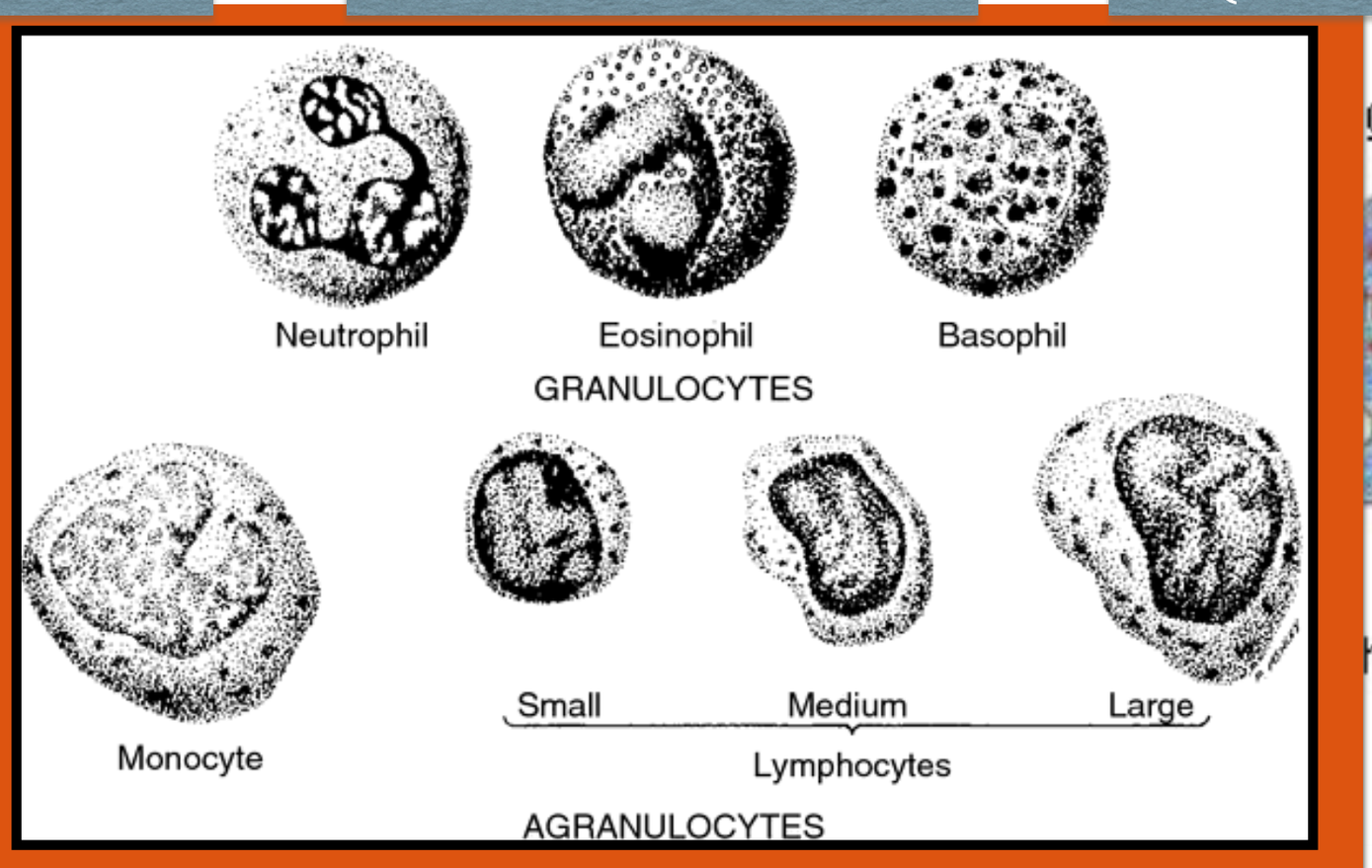
('εος + φιλέω)
(rosy + love)

Basophil
A granulocyte
c dark, basic
granules.

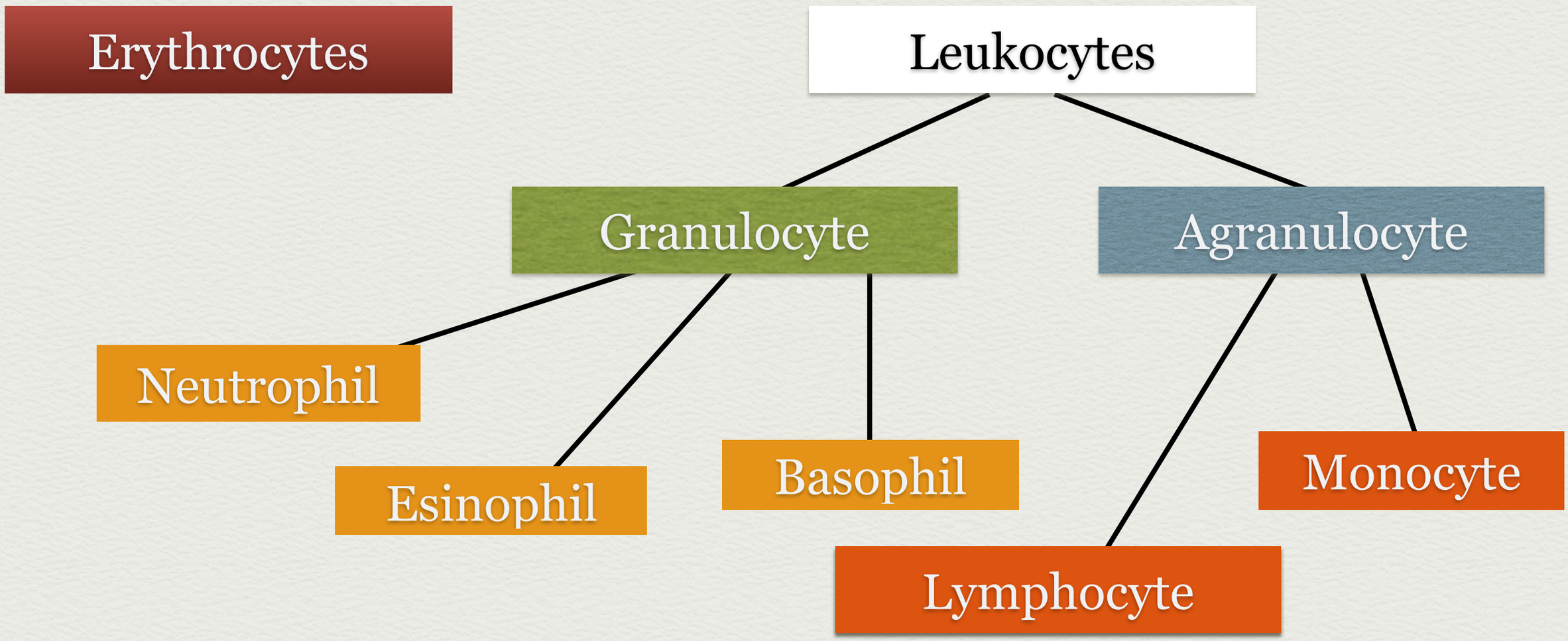
(βάσις+ φιλέω)
(basic + love)







Cells: A Review



-Osis My!

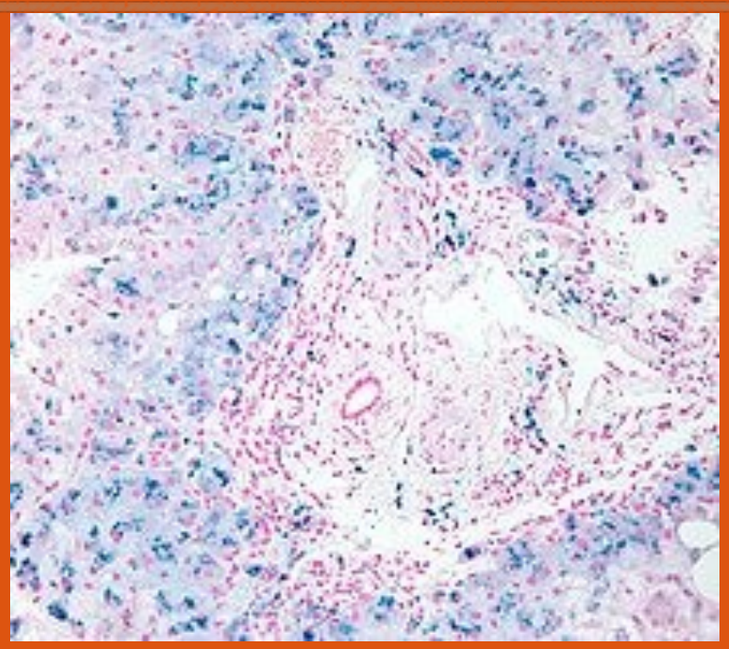
This chapter features a larger number of conditions involving cells.

All of these conditions, except one, feature the suffix: '**-cytosis**'.

-Osis My!

Anisocytosis

hemochromatosis
(αἷμα = blood
χρωμα =color)



erythroblastosis fetalis
(βλάστος = germ
fetalis = fetus)

(μακρός = large)

Reticulocytosis
(reticulum = net)

A '-penia' for your thoughts!

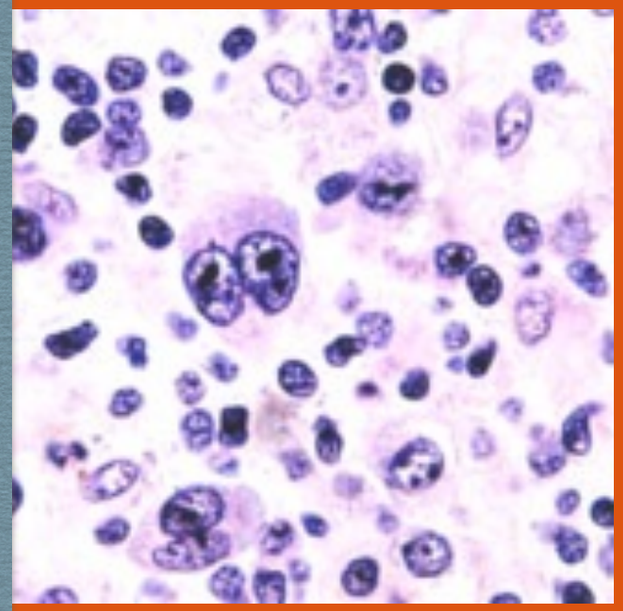
Another large group of words introduced in this chapter uses the suffix '**-penia**'.

As we have learned, '**-penia**' means *'a lack of'*.

A Handful of '-penia's

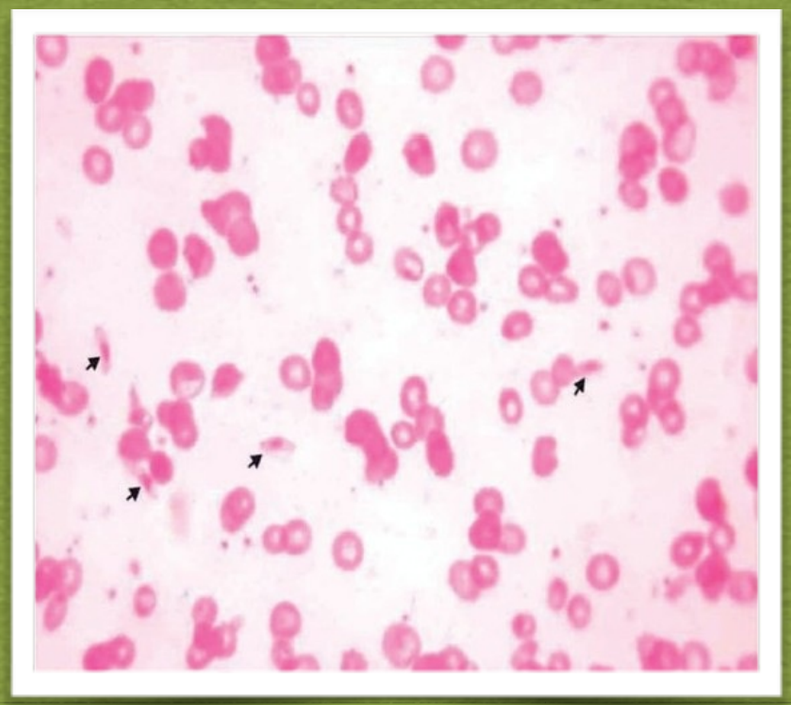
erythrope
('ερυθρος =

neutropenia
(neuter = neither)

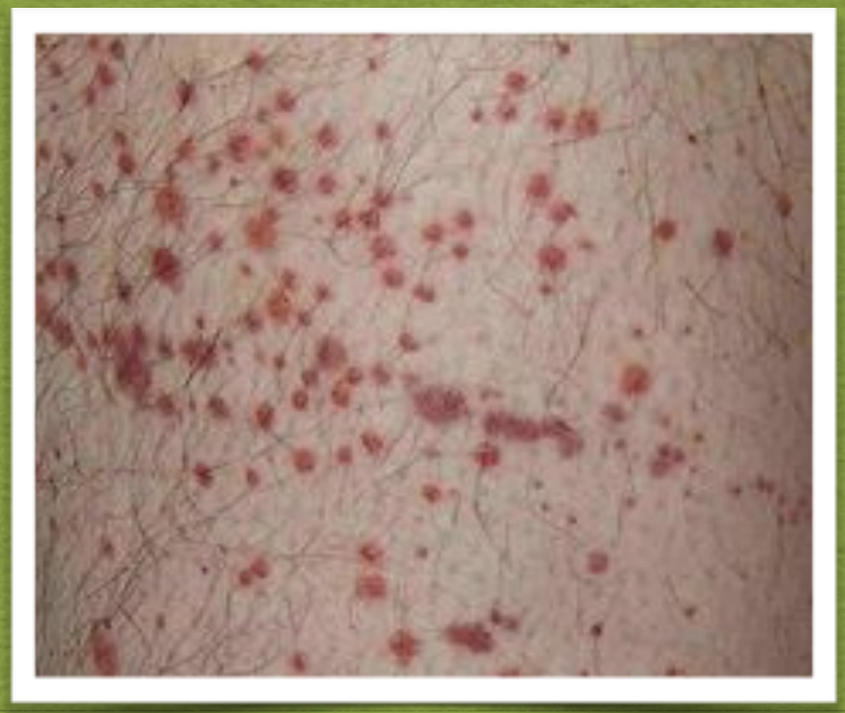


hocytopenia
(lympha, ae =
water, clear liquid)

A Handful of '-penia's



pancytopenia
(πας, παντις = all)



thrombocytopenia
(θρόμβος = all)

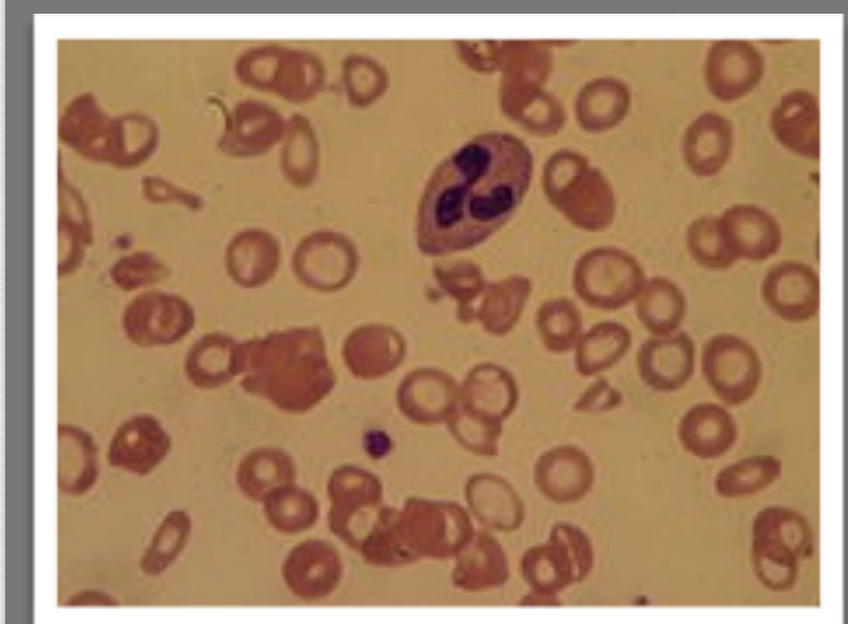
The suffix '-ia'

The other large group of terms in this Chapter are those ending in -**ia**.

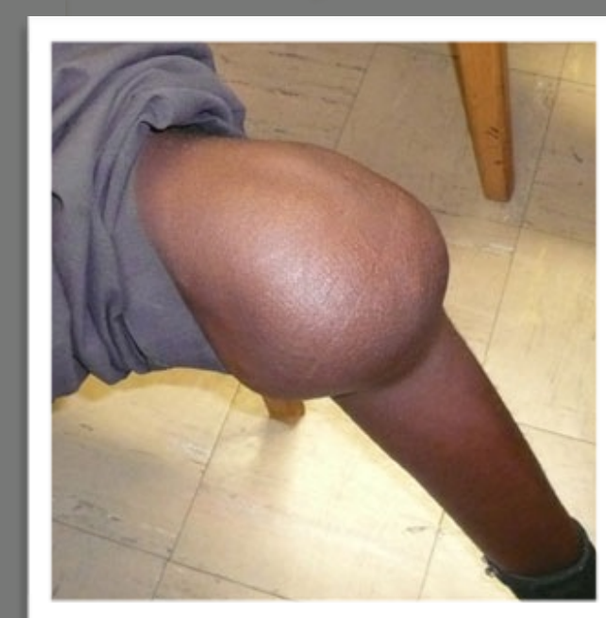
As we remember from Chapter 1, -**ia** is translated as "the condition of".

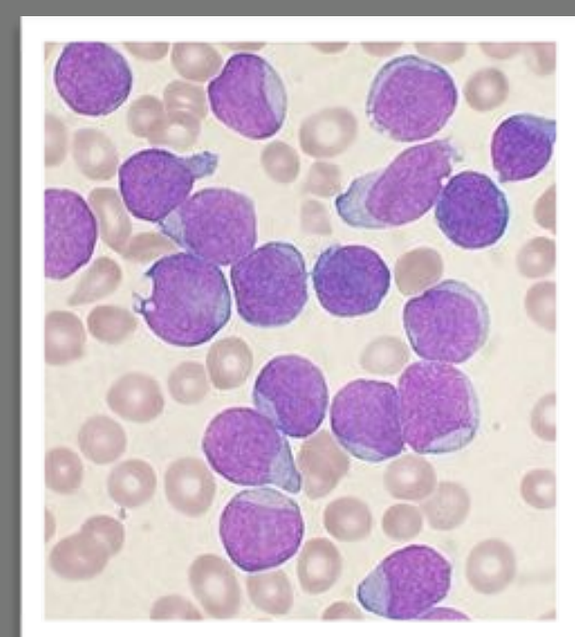
The suffix '-ia'

anemia
(αν + άιμα = s blood)



hemophilia
(άιμα + φιλέω = blood + love)

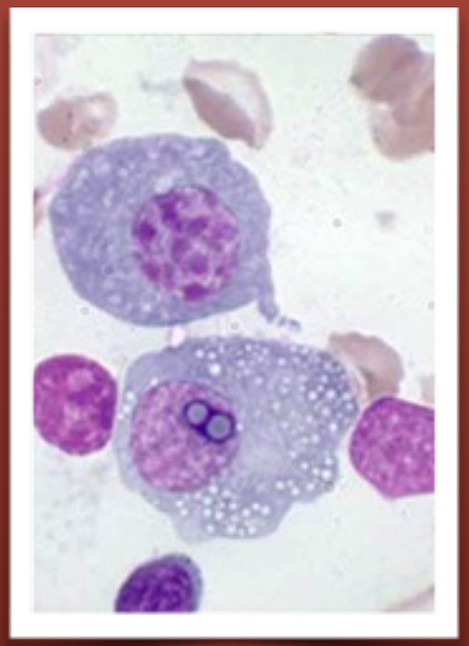




leukemia
(λευκός + άιμα = white + blood (condition))

The suffix '-ia'

myelodysplasia
(myel+ dys + plas + ia)



polycythemia
(πολυς + κύτος + αίμα)

septicemia
(σήπω + αίμα =
rotten blood)

'-Tomy' about it!

The final group of words for this Chapter are those ending in '**tomy**', which indicates a type of operation.

-**ectomy** = *excision*

-**tomy** = *incision*

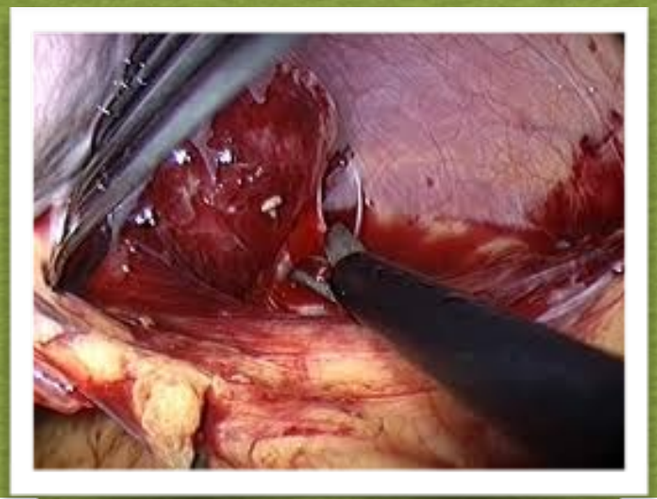
'-Tomy' about it!

Phlebotomy

Lymphadenotomy

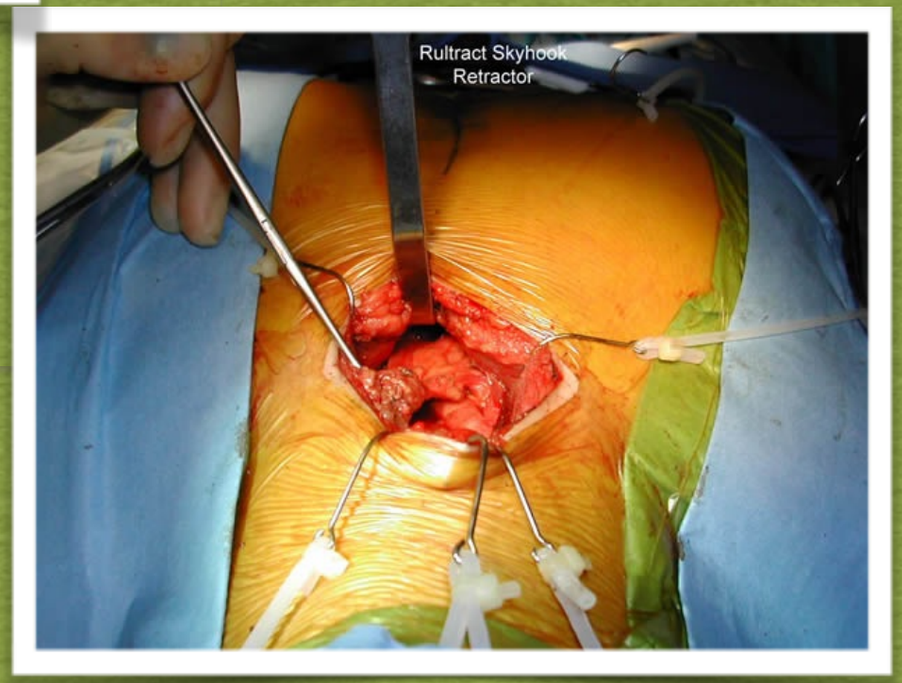
'-Tomy' about it!

Splenectomy



Lyphadenectomy

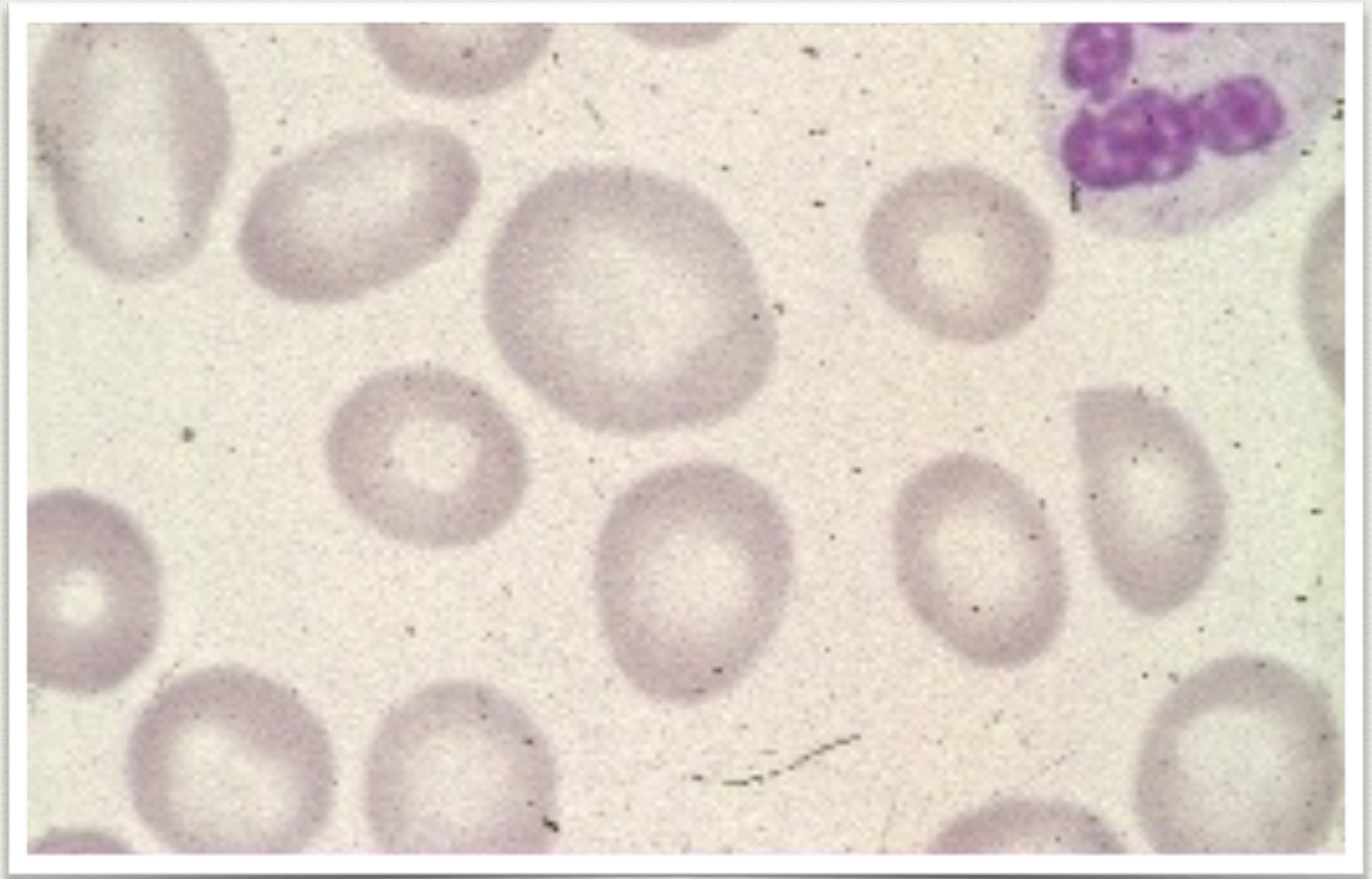
Thymectomy



Group ID!

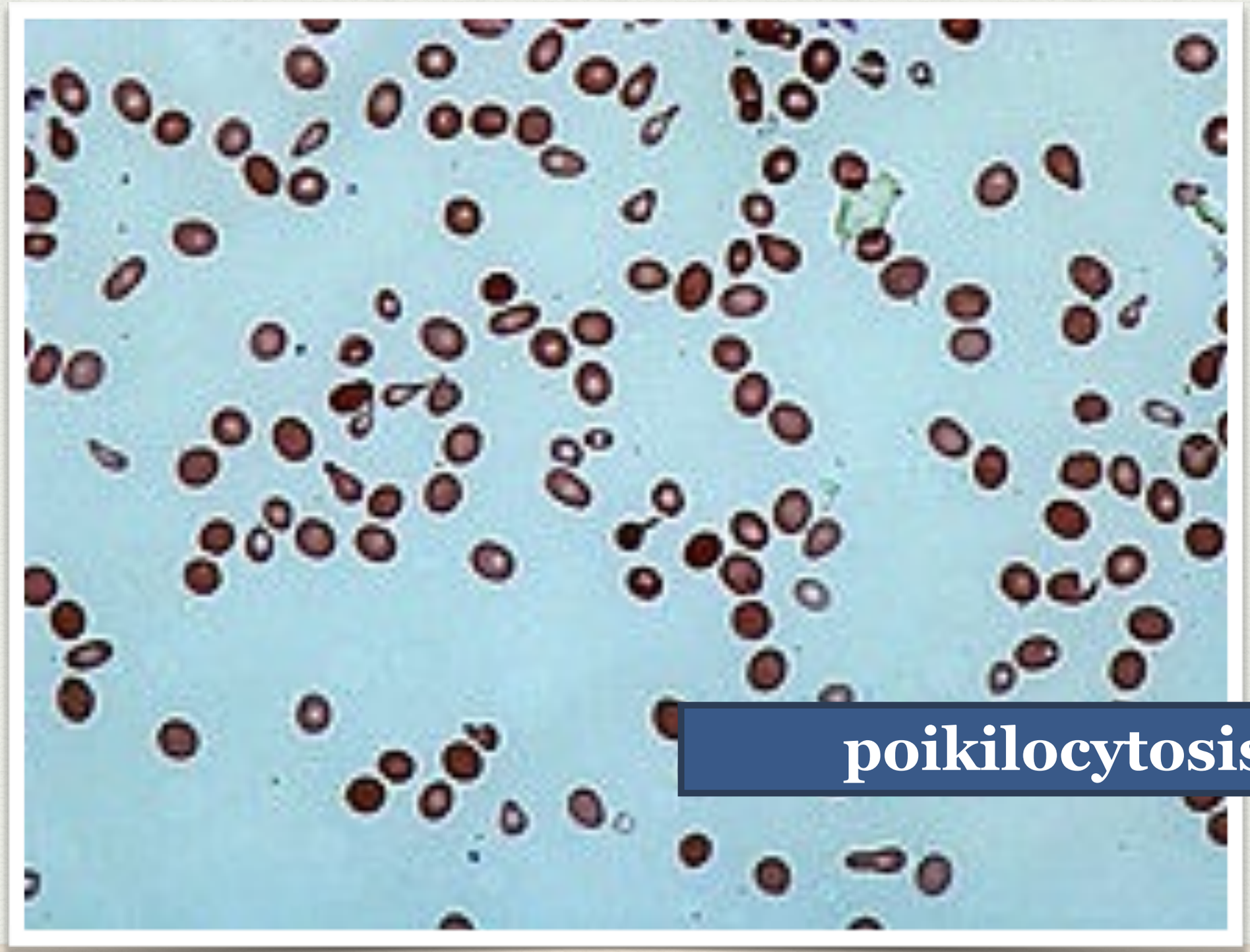
Get in your groups!

presence of large red blood cells



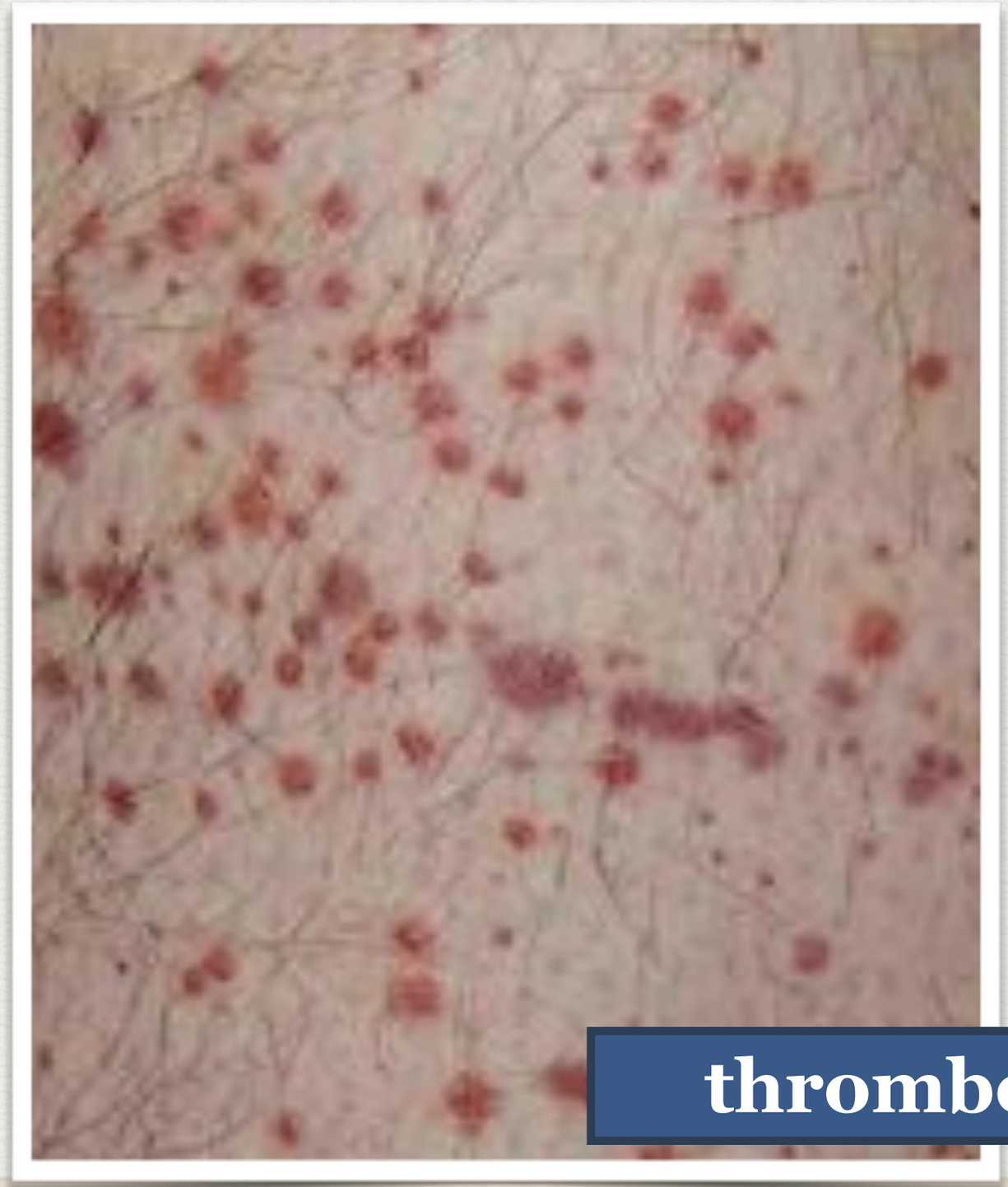
Macrocytosis

presence of large, irregularly shaped red blood cells



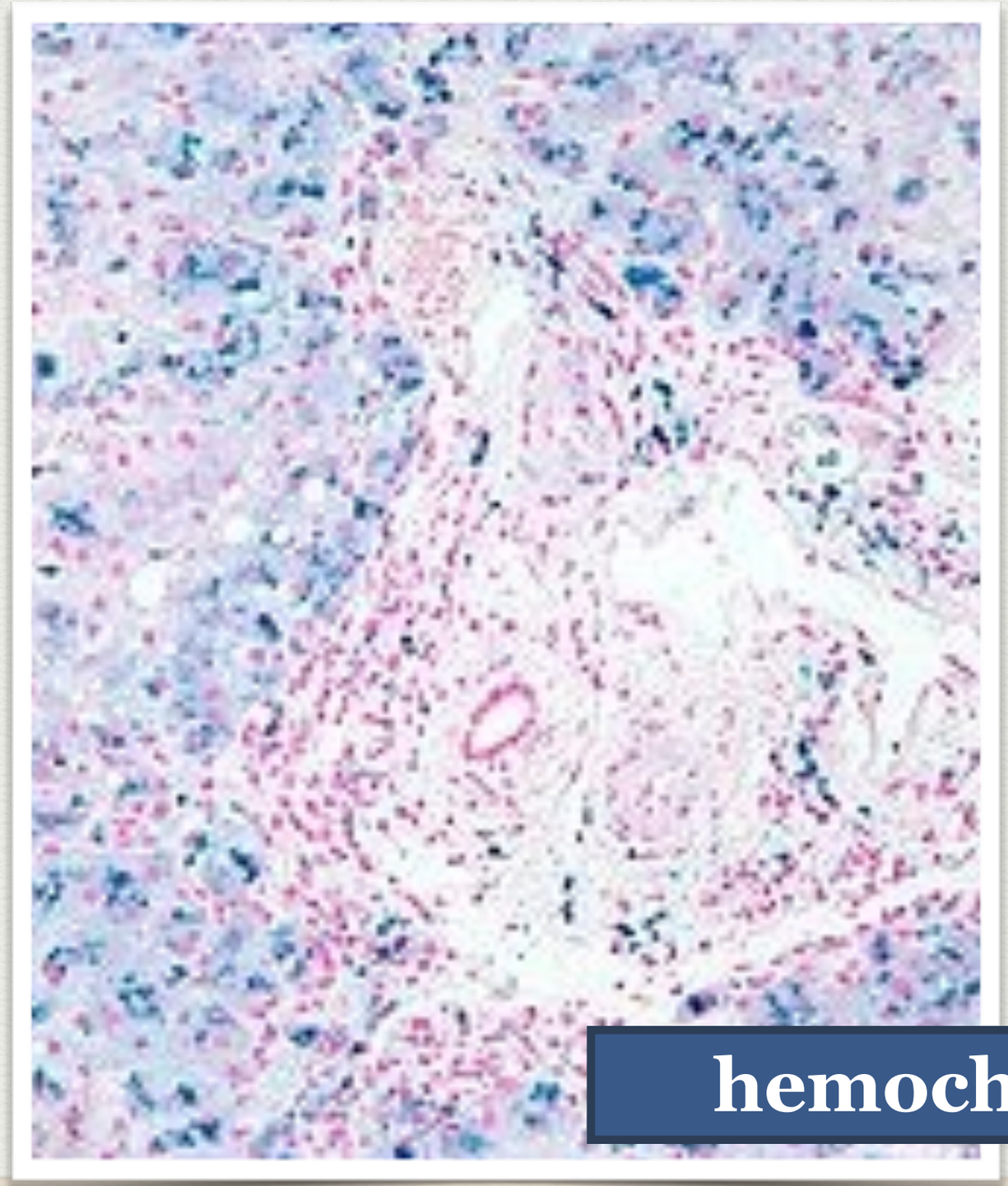
poikilocytosis

an abnormally decreased number of platelets in the blood, impairing the clotting process



thrombocytopenia

hereditary disorder with an excessive buildup of iron deposits in the body



hemochromatosis

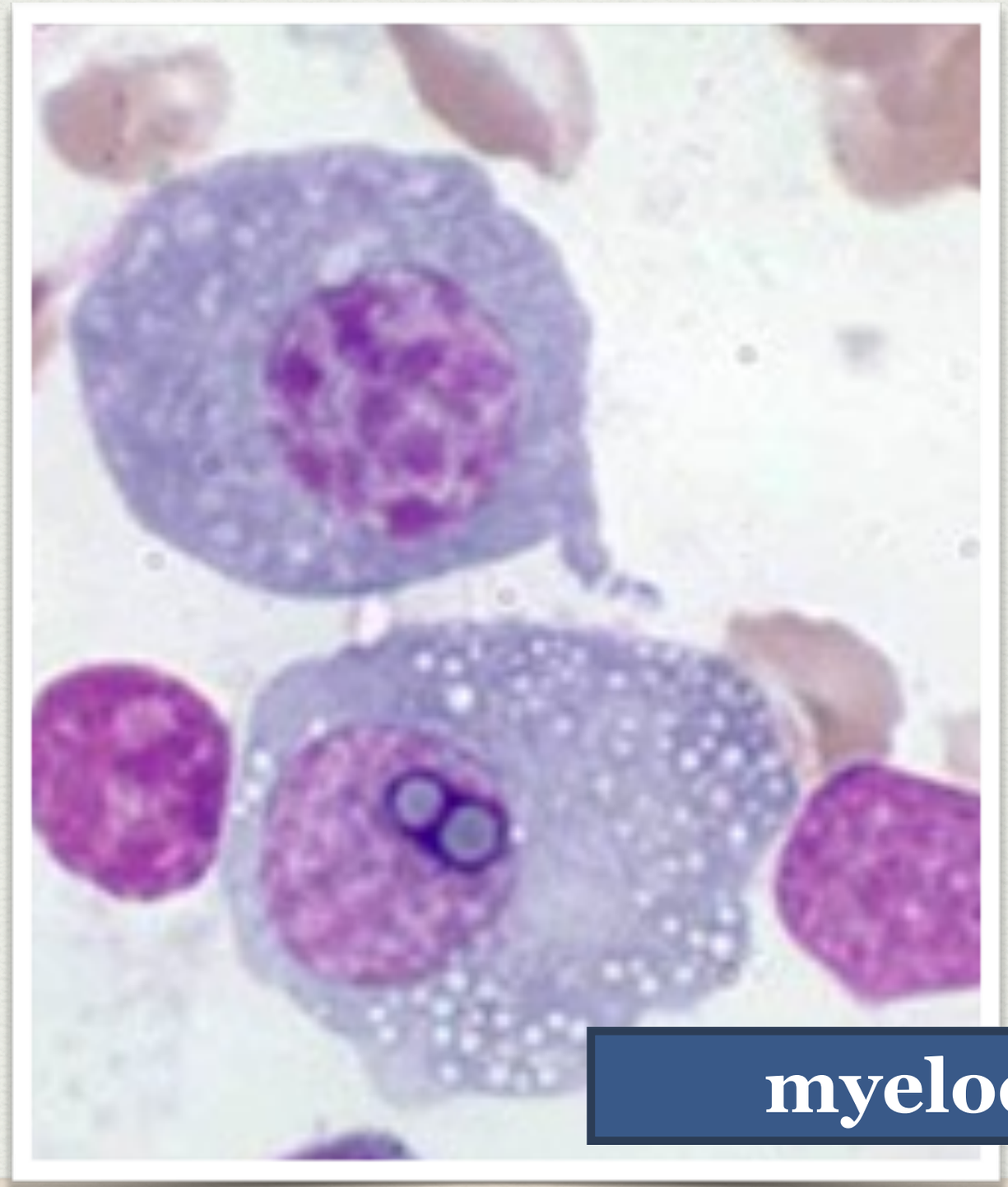
disorder that results from the incompatibility of a fetus with Rh-positive blood & a mother with Rh-negative blood

erythroblastosis fetalis

increased number of erythrocytes and hemoglobin in the blood

polycythemia

disorder within the bone marrow characterized by a proliferation of abnormal stem cells



myelodysplasia

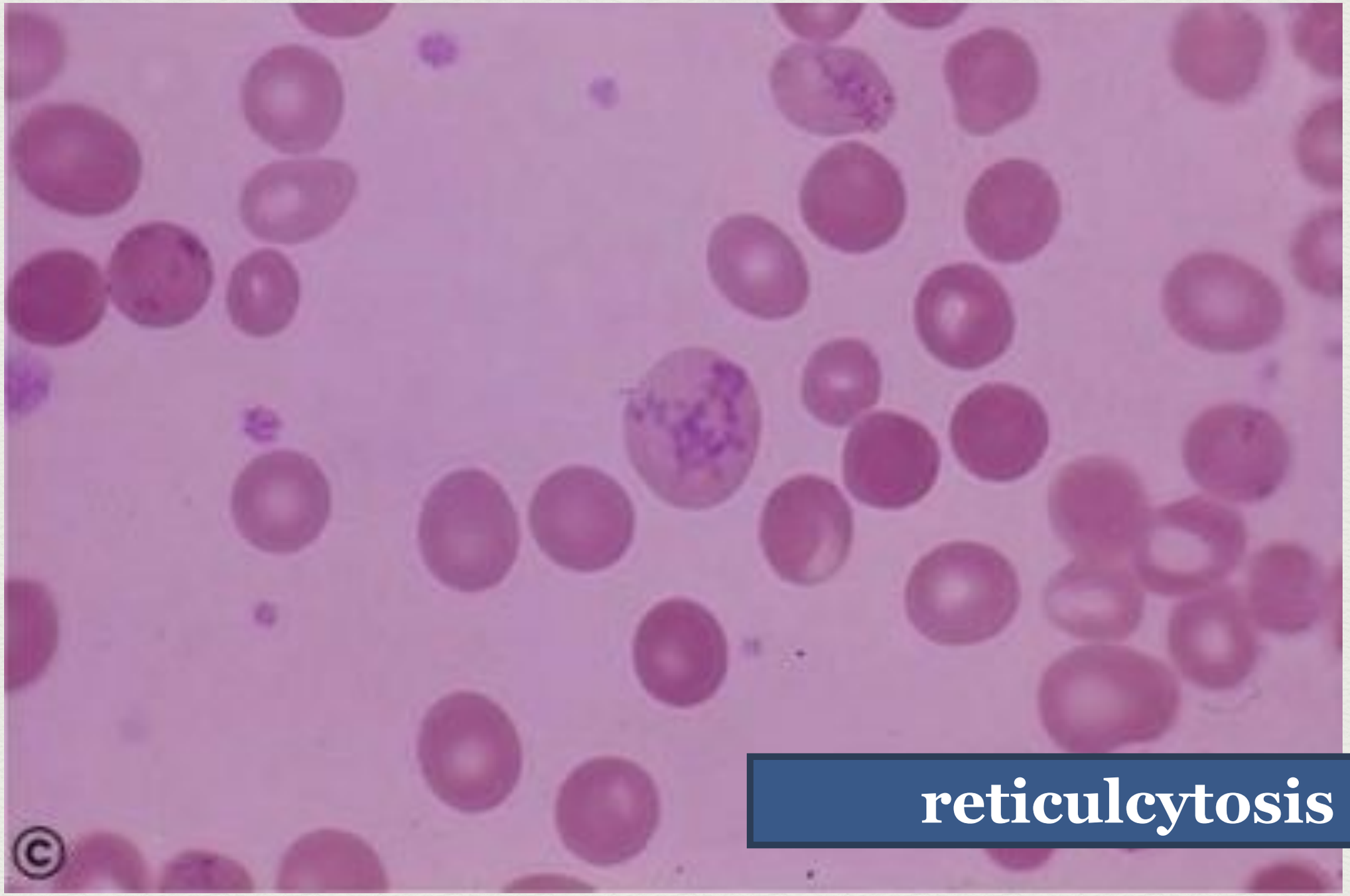
incision into a lymph node

lymphadenotomy

systemic disease caused by infection with microorganisms and their toxins in circulating blood

septicemia

increased number of immature erythrocytes in the blood



reticulcytosis