

Lymphocyte Variations



reactive lymphocyte

- The majority of lymphocytes are located in extravascular sites, such as lymph nodes, the gastrointestinal tract, and spleen.
- When activated by contact with antigens, lymphocytes undergo morphological changes.
- The specific morphological change is related to the specific lymphocyte's function.

Lymphocyte Variations

Reactive

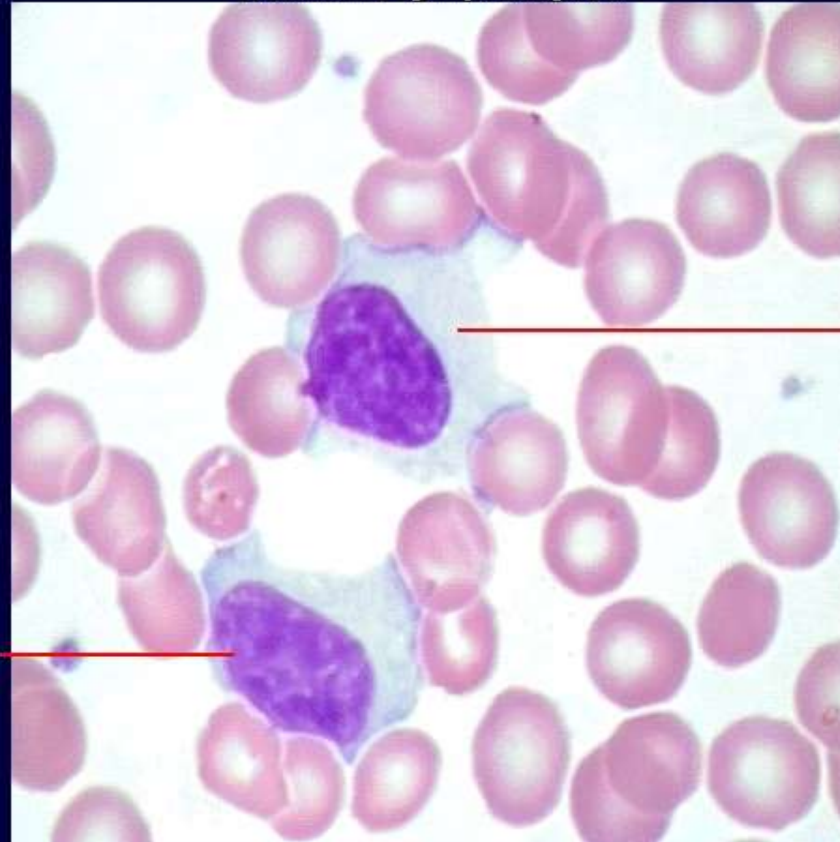
Large granular

Cleaved

Plasma cells

Morphology:
lymphocytes with abundant cytoplasm often indented by surrounding red blood cells

Reactive lymphocytes



reactive lymphocyte

reactive lymphocyte

Comment: Reactive lymphocytes (atypical lymphocytes) may be associated with viral infections.

Lymphocyte Variations

Reactive

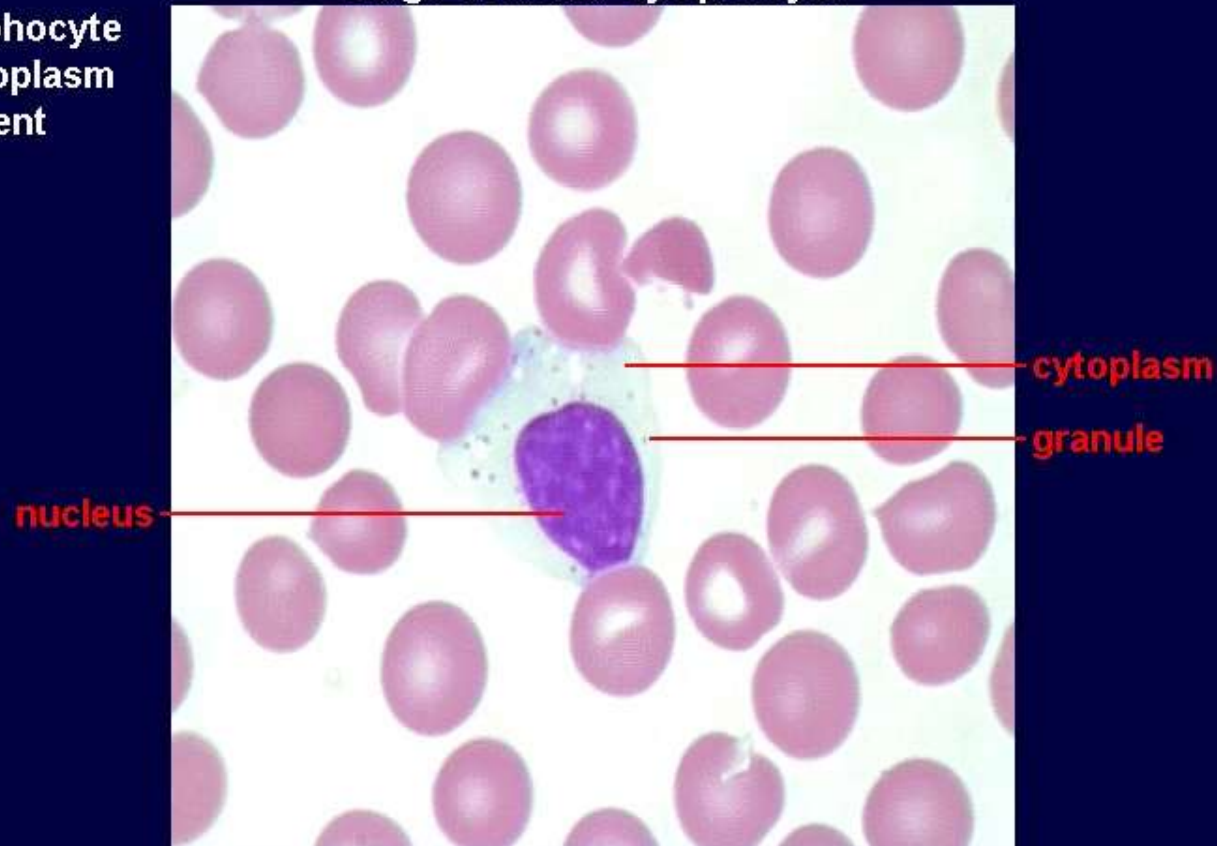
Large granular

Cleaved

Plasma cells

Large Granular Lymphocyte

Morphology: lymphocyte with abundant cytoplasm containing prominent granules



Comment: Large granular lymphocytes may be associated with viral infection or neutropenia.

Lymphocyte Variations

Reactive

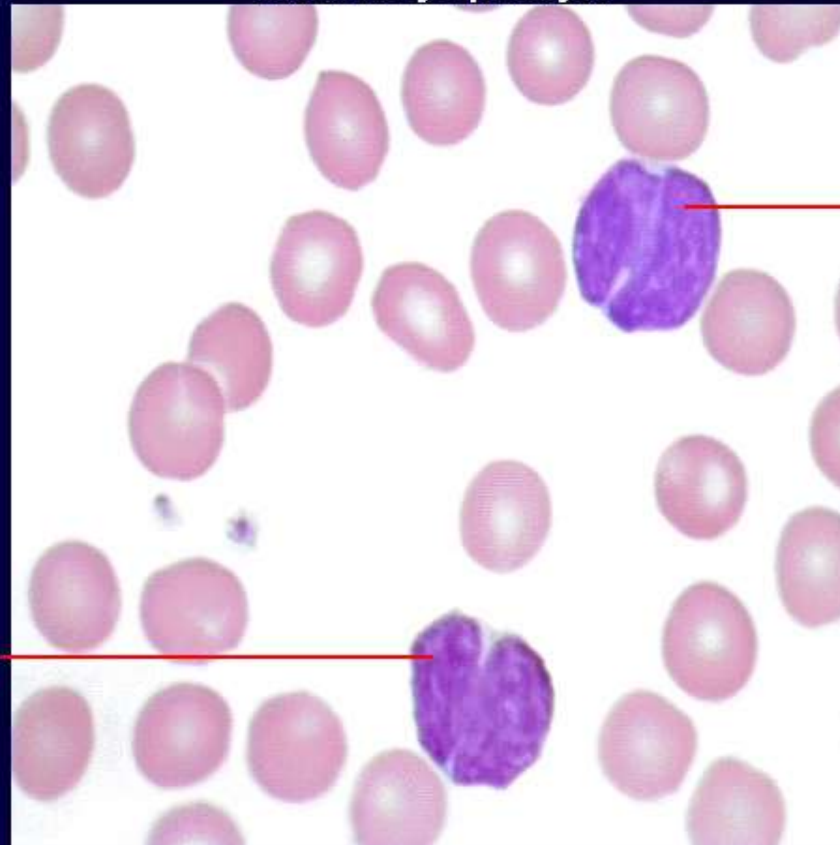
Large granular

Cleaved

Plasma cells

Morphology:
lymphocytes with large
nuclear clefts

Cleaved lymphocyte



cleaved lymphocyte

cleaved lymphocyte

Comment: Lymphocytes with a cleaved nucleus are associated with pertussis (whooping cough) in children.

Lymphocyte Variations

Reactive

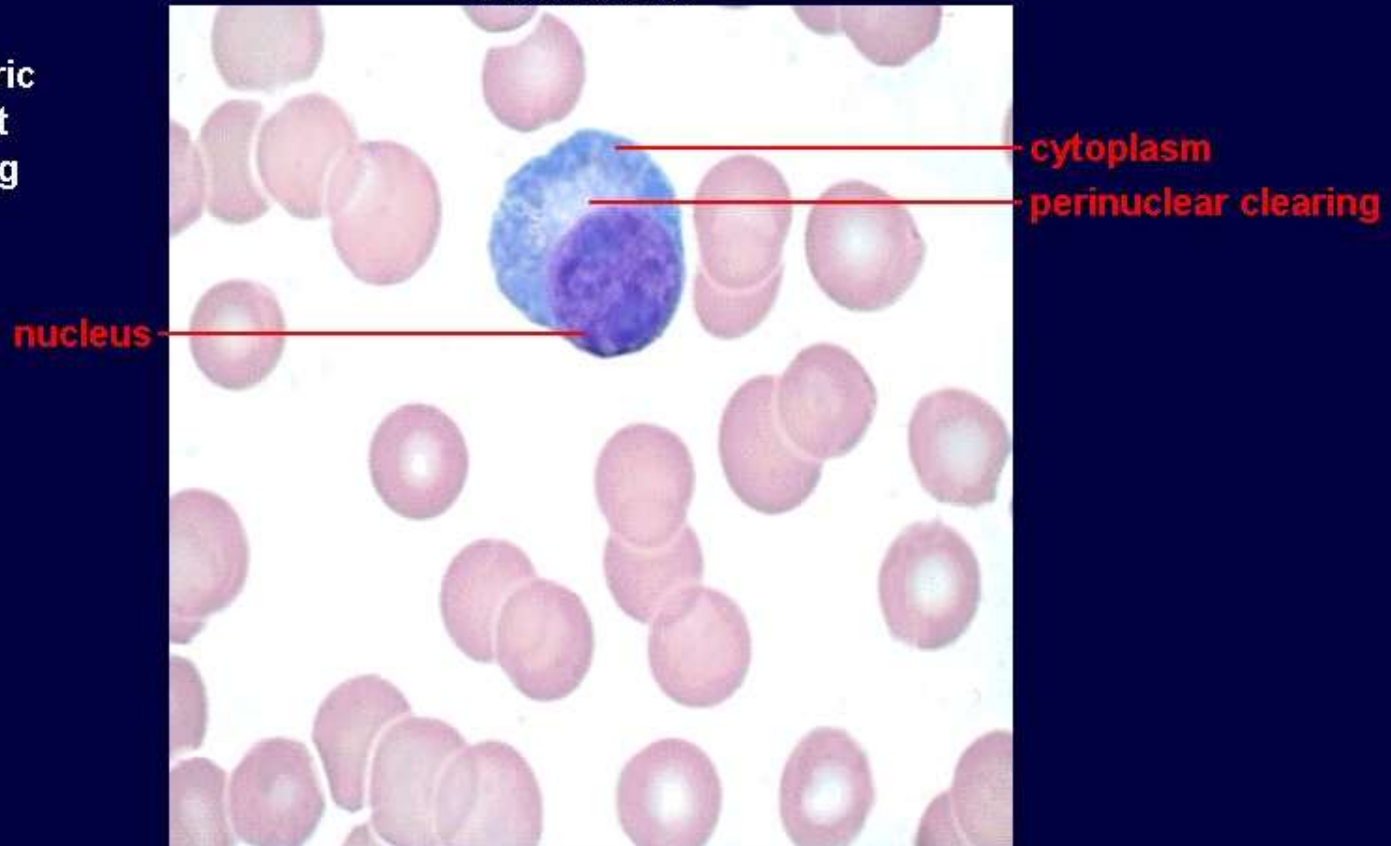
Large granular

Cleaved

Plasma cells

Morphology: blue cytoplasm, eccentric nucleus, prominent perinuclear clearing

Plasma cells



Comment: Plasma cells are rarely seen in the peripheral blood except in cases of severe inflammation or end stage multiple myeloma.