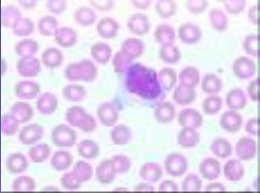


NONMALIGNANT LYMPHOCYTE DISORDERS

- ## LYMPHOCYTOSIS
- Infectious Mononucleosis
 - Toxoplasmosis
 - Cytomegalovirus
 - Infectious Lymphocytosis
 - Bordetella Pertussis
 - Persistence Lymphocytosis
 - Other Disorders Associated with Lymphocytosis
 - Plasmacytosis

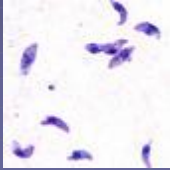
INFECTIOUS MONONUCLEOSIS

- Epstein Barr-Virus
- Clinical – lethargy, headache, fever, chills, sore throat, nausea, lymphadenopathy
- Absolute lymphocytosis, reactive lymphs
- Heterophile Antibodies



TOXOPLASMOSIS

- Toxoplasma gondii
- Relative Lymphocytosis, Reactive Lymphs (Lymphoblast or Lymphoma like)
- Heterophile Antibody Negative
- Toxoplasma Antibodies



CYTOMEGALOVIRUS

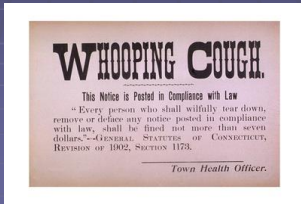
- Herpes-group Virus
- Leukocytosis with absolute Lymphocytosis
- Virus found in the Urine or Blood
- Decrease in T helper cells, Increase in T suppressor/cytotoxic cells

INFECTIOUS LYMPHOCYTOSIS

- Leukocytosis $40-50 \times 10^9/L$, 60-70% small lymphocytes

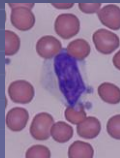
BORDETELLA PERTUSSIS

- Whooping Cough
- Lymphocytosis



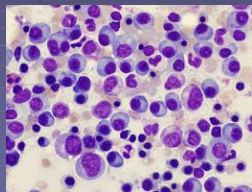
LYMPHOCYTIC LEUKEMOID REACTION

- Relative Lymphocytosis, large reactive cells with deep blue cytoplasm, fine chromatin, cytoplasmic vacuoles
- BM shows minimal or no increase in lymphocytes



PLASMACYTOSIS

- Rubella infections
- Skin Diseases
- Cirrhosis of the liver



LYMPHOCYTOPENIA

- Absolute count $<1 \times 10^9/L$
- Immune Deficiency Disorders
- Severe Combined Immunodeficiency Syndrome
- Wiskott-Aldrich Syndrome
- DiGeorge Syndrome
- Sex-linked Agammaglobulinemia
- Hereditary Ataxia-Telangiectasia

AIDS

- Rotavirus HIV-1
- 3 stages
 - Asymptomatic Carrier
 - Aids-Related Complex (ARC)
 - Aids
- Definition
 - Opportunistic Infection or other clinical condition associated with cell-mediated immune defects
 - CD4 count >200 cells/ μ l
- Monitor – CD4 Counts and Viral Load
- Therapy – AZT and protease inhibitors



WISKOTT-ALDRICH SYNDROME

- Sex-linked Recessive
- Eczema, thrombocytopenia, immunodeficiency
- ↓ T lymphocytes
- Low or absent blood group antibodies
- Abnormal Bleeding



SCIDS

- Major qualitative immune defects
- Decreased Absolute Lymphocyte Count
- T and B Lymphoid Systems decreased
- Sex-linked
-



DIGEORGE SYNDROME

- Absence or Hypoplasia of Thymus
- Hypoparathyroidism, heart defects, dysmorphic facies
- Hypocalcemia
- ↓ T Lymphocytes



SEX-LINKED AGAMMAGLOBULINEMIA

- Bruton's
- Sex-linked
- Respiratory and skin infections
- ↓ B Lymphocytes



HEREDITARY ATAXIA- TELANGIECTASIA

- Autosomal-recessive
- Neurological disease, immune dysfunction, predisposition for malignancy