

Cells and Tissues of the Immune System

Chapter 2

- I. Cells of the Immune System
 - A. Background Info
 1. non-leukocytes
 2. leukocytes
 - B. Granulocytes
 1. Mast cells
 2. Basophils
 3. Eosinophils
 4. Neutrophils
 - C. Agranulocytes
 1. Monocyte
 2. Macrophage
 - 1) giant cells
 3. Dendritic cells
 - D. Lymphoid lineage
 1. Natural killer cells
 2. Lymphocytes
 - a. Ag receptors
 - 1) naive
 - 2) effector
 3. T lymphocytes
 - 1) thymus
 - 2) TCRs
 - 3) CD
 - a. helper T cells - CD4⁺
 - b. cytotoxic T cells - CD8⁺ - CTL
 - c. regulatory T cells
 - d. other T cells
 4. B lymphocytes
 5. plasma cell
 6. plasmablasts

II. Tissues & Organs of the Immune System

A. Background

1. generative = 1°
2. peripheral = 2°

B. Bone marrow

1. hematopoiesis
2. hematopoietic stem cells

C. Thymus

1. anatomy
 - a. cortex
 - 1) thymic cortical epithelial cells
 - b. medulla
 - 1) medullary thymic epithelial cells

2. disease

D. Lymph Nodes

1. vessels
 - 1) lymph
2. nodes
 - a. capsule
 - b. subcapsular sinus
 - c. cortex
 - 1) follicles
 - a) primary follicles
 - b) secondary follicles
 - germinal centers
 - 2) T cell zone
 - d. medulla
 - e. medullary sinus

3. swollen

E. Spleen

1. function
2. structure
 - a. red pulp
 - b. white pulp
3. homeostatic imbalance

F. Cutaneous & mucosal immune system

- a) MALT

G. Tonsils

1. structure

H. Peyer's patches

I. Appendix