MCQ Micro

2025

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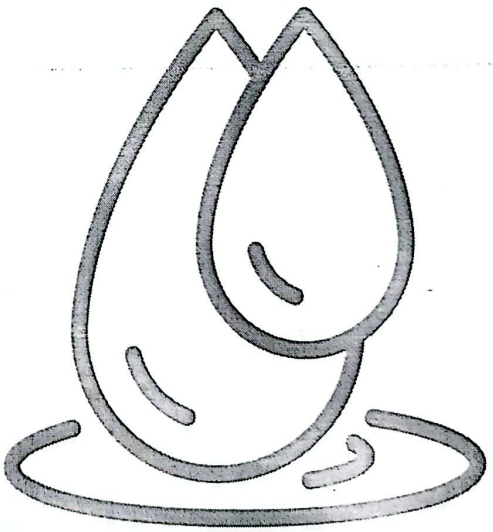

Lecture 2

Dr A G

1	**What is immunological tolerance?** A. Response to foreign antigens B. Inability to respond to any antigen C. Unresponsiveness to self-antigens D. Overreaction to allergens E. Deletion of memory cells	C
2	**Which site is involved in central tolerance for T cells?** A. Bone marrow B. Spleen C. Liver D. Thymus E. Lymph nodes	D
3	**Which mechanism leads to apoptosis of strongly self-reactive lymphocytes?** A. Peripheral tolerance B. Antigenic shift C. Negative selection D. Somatic hypermutation E. Clonal expansion	C
4	**Tolerance at the T cell level is:** A. Absent B. Shorter than B cell tolerance C. Equal to B cell tolerance D. Longer than B cell tolerance E. Non-existent after birth	D

5	**Where does peripheral tolerance occur?** A. In the thymus B. Bone marrow C. Everywhere in the body D. Liver E. Lymph node only	C
6	**Which mechanism is NOT involved in central tolerance?** A. Receptor editing B. Negative selection C. Development of regulatory T cells D. Clonal ignorance E. Apoptosis	D
7	**What is the function of regulatory T cells in tolerance?** A. Stimulate B cell proliferation B. Enhance inflammation C. Suppress self-reactive immune responses D. Promote memory cell formation E. Trigger apoptosis of macrophages	C
8	**Receptor editing primarily occurs in:** A. Macrophages B. NK cells C. CD4+ T cells D. B cells E. Dendritic cells	D

9	**Which statement best describes clonal anergy?** A. Total deletion of self-reactive cells B. Ignoring non-self antigens C. Functional inactivation without cell death D. Apoptosis of all naive cells E. Overexpression of receptors	C
10	**What is clonal ignorance?** A. Auto-reactive cells are deleted during development B. B cells become plasma cells C. Self-reactive lymphocytes fail to encounter antigen D. T cells form memory clones E. Antigen is removed by dendritic cells	C
11	**What happens to T cells that do not receive a co-stimulatory signal during antigen presentation?** A. Undergo mitosis B. Become memory cells C. Become anergic D. Switch to CD8+ E. Differentiate into NK cells	C
12	**Which costimulatory molecules are involved in clonal anergy?** A. B7 and CD28 B. Fas and FasL C. TCR and MHC I D. IL-2 and IL-10 E. CD4 and CD8	A

13	**Clonal anergy in B cells is associated with downregulation of:** A. MHC II B. CD4 C. IgM D. CD40 E. IgG	C
14	**What is the function of regulatory T cells in peripheral tolerance?** A. Promote cytokine storm B. Activate dendritic cells C. Suppress immune responses D. Kill infected cells E. Enhance memory T cell formation	C
15	**What type of peripheral tolerance mechanism depends on antigen sequestration?** A. Clonal anergy B. Anti-idiotype C. Clonal ignorance D. Deletion E. Suppression	C
16	**Which condition occurs when self-reactive B cells do not receive T cell help?** A. Plasma cell formation B. Anergy C. Isotype switching D. Regulatory B cell differentiation E. Antibody secretion	B

17	**Anti-idiotype antibodies function by:** A. Activating B cells B. Promoting T cell memory C. Blocking antibody–antigen interactions D. Enhancing phagocytosis E. Degrading MHC molecules	C
18	**Autoimmune disease results from:** A. Overproduction of insulin B. Excessive innate immunity C. Failure of self-tolerance mechanisms D. Bacterial invasion E. Hypersensitivity type I only	C
19	**Which cells may play a role in the damage seen in autoimmune diseases?** A. Macrophages and eosinophils B. Mast cells and dendritic cells C. T lymphocytes and B lymphocytes D. NK cells and fibroblasts E. Platelets and neutrophils	C
20	**Which of the following is an example of an organ-specific autoimmune disease?** A. Rheumatoid arthritis B. Systemic lupus erythematosus C. Hashimoto thyroiditis D. Sarcoidosis E. Psoriasis	C

21	**Systemic autoimmune diseases are characterized by:** A. Response to one localized antigen B. Attack on blood only C. Response against many antigens across the body D. Limited to gastrointestinal organs E. Exclusively caused by bacteria	C
22	**What is one proposed mechanism for autoimmune disease initiation involving hidden antigens?** A. Gene editing B. T-cell mutation C. Release of sequestered antigens D. B-cell overactivation E. Viral lysis of CD4 cells	C
23	**What immune process may fail, allowing auto-reactive T cells to survive?** A. Somatic hypermutation B. Isotype switching C. Negative selection D. Cytokine release E. Class switching	C
24	**Autoimmune hemolytic anemia is classified as which type of autoimmune disease?** A. Systemic B. Metabolic C. Allergic D. Organ-specific E. Blood-related organ-specific	E

25	Deficiency of which immune cells can lead to failure of immune regulation in autoimmunity? A. Memory B cells B. Helper T cells C. Regulatory T cells D. Natural killer cells E. Plasma cells	C
26	Which of the following is a non-organ-specific autoimmune disease? A. Type 1 diabetes mellitus B. Hashimoto thyroiditis C. Rheumatoid arthritis D. Autoimmune thrombocytopenia E. Autoimmune hemolytic anemia	C
27	What event may expose hidden intracellular antigens, leading to an autoimmune response? A. IgA production B. Somatic recombination C. Tissue trauma or injury D. DNA methylation E. Complement activation	C
28	What is the best example of molecular mimicry leading to autoimmunity? A. Type I diabetes B. Rheumatoid arthritis C. Systemic lupus erythematosus D. Rheumatic fever E. Multiple sclerosis	D