

LEC 15

- 1. What are the effects of parasympathetic action on the heart?
- a) Increase all cardiac properties
- b) Decrease all cardiac properties except atrial conduction
- c) Increase atrial conduction only
- d) Decrease atrial conduction only
- 2. Which blood vessels experience vasoconstriction during sympathetic action?
- a) Skin and mucous membrane blood vessels
- b) Skeletal and coronary blood vessels
- c) Pulmonary blood vessels
- d) Cerebral blood vessels
- 3. What is the effect of sympathetic action on blood pressure?
- a) Hypotension
- b) Hypertension
- c) No effect
- d) Increase heart rate
- 4. Which of the following describes the action of parasympathetic action on the pupil of the eye?
- a) Mydriasis
- b) Miosis
- c) No effect
- d) Pupillary dilation



- 5. Which part of the body experiences bronchoconstriction during sympathetic action?
- a) Lungs
- b) Kidneys
- c) Liver
- d) Stomach
- 6. What is the effect of sympathetic action on the walls of the gastrointestinal tract?
- a) Contract the walls
- b) Relax the walls
- c) Inhibit motility of the walls
- d) Contract the sphincters
- 7. What is the effect of parasympathetic action on the urinary tract?
- a) Erection in males
- b) Ejaculation in males
- c) Relaxation of uterine wall in females
- d) Relaxation of the urinary wall
- 8. What type of secretion is produced by exocrine glands during sympathetic action?
- a) Profuse watery secretion
- b) No effect on secretion
- c) Thick viscid secretion
- d) Increase in secretion



9. Which type of adrenergic receptors are activated by sympathetic action?

a) Alpha 1 and Alpha 2

b) Alpha 1 and Beta 1

c) Beta 1 and Beta 2

d) Beta 2 and Beta 3

10. What is the mechanism of action of alpha 1 adrenergic receptors?

a) Stimulate phospholipase C

b) Decrease adenyl cyclase activity

c) Increase intracellular calcium levels

d) Increase intracellular cyclic AMP levels

11. How do alpha 2 adrenergic receptors affect adenyl cyclase activity?

a) Stimulate adenyl cyclase activity

b) Decrease adenyl cyclase activity

c) Increase intracellular calcium levels

d) Increase intracellular cyclic AMP levels

12. What effect does activation of beta receptors have on the heart?

a) Increase all cardiac properties

b) Decrease all cardiac properties

c) Increase heart rate only

d) Decrease heart rate only



13. What is the effect of sympathetic action on the iris muscle of the eye?

- a) Contraction leading to mydriasis
- b) Relaxation leading to miosis
- c) No effect on the iris muscle
- d) Increase in intraocular pressure

14. What is the primary mechanism of action of sympathomimetics?

- a) Direct stimulation of adrenergic receptors
- b) Indirect stimulation of adrenergic receptors
- c) Dual mechanism of action
- d) Inhibition of sympathetic centers in the CNS
- 15. Which type of sympathomimetics can pass the blood-brain barrier?
- a) Catecholamines
- b) Non-catecholamines
- c) Dopamine agonists
- d) Alpha adrenergic agonists
- 16. What is the main therapeutic use of adrenaline?
- a) Treatment of hypotensive states
- b) Treatment of heart block
- c) Treatment of bronchial asthma
- d) Treatment of shock



17. Which sympathomimetic is commonly used for the treatment of heart failure?

- a) Isoprenaline
- b) Dopamine
- c) Dobutamine
- d) Noradrenaline

18. What is the primary mechanism of action of non-catecholamine sympathomimetics?

- a) Direct stimulation of adrenergic receptors
- b) Indirect stimulation of adrenergic receptors
- c) Inhibition of sympathetic centers in the CNS
- d) Inhibition of adrenergic reuptake
- 19. What is the therapeutic use of isoxsuprine?
- a) Nasal decongestion
- b) Bronchodilation
- c) Uterine relaxation
- d) Hypotensive states
- 20. Which sympathomimetic is used for the treatment of bronchial asthma?
- a) Salbutamol
- b) Ephedrine
- c) Phenylephrine
- d) Methoxamine



Answer Key:

- 1. b) Decrease all cardiac properties except atrial conduction
- 2. b) Skeletal and coronary blood vessels
- 3. b) Hypertension
- 4. b) Miosis
- 5. a) Lungs
- 6. b) Relax the walls
- 7. d) Relaxation of the urinary wall
- 8. c) Thick viscid secretion
- 9. a) Alpha 1 and Alpha 2
- 10. a) Stimulate phospholipase C
- 11. b) Decrease adenyl cyclase activity
- 12. a) Increase all cardiac properties
- 13. a) Contraction leading to mydriasis
- 14. a) Direct stimulation of adrenergic receptors
- 15. a) Catecholamines
- 16. a) Treatment of hypotensive states
- 17. c) Dobutamine
- 18. b) Indirect stimulation of adrenergic receptors
- 19. c) Uterine relaxation
- 20. a) Salbutamol

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