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1. Which term describes a drug that activates the sympathetic nervous system?
   a. Parasympathomimetic
   b. Sympathomimetic
   c. Sympatholytic
   d. Parasympatholytic

2. What is the primary neurotransmitter responsible for the "fight or flight" response?
   a. Acetylcholine
   b. GABA
   c. Adrenaline (Epinephrine)
   d. Dopamine

3. In the context of asthma, which type of medication is recommended due to its bronchodilatory effects?
   a. Alpha agonist
   b. Beta 1 agonist
   c. Beta 2 agonist
   d. Alpha antagonist

4. Why is the use of beta-blockers in individuals with both asthma and hypertension not recommended?
   a. They cause bronchoconstriction.
   b. They increase blood pressure.
   c. They induce vasodilation.
   d. They have no effect on respiratory function.

5. What is the general effect of alpha blockers on blood pressure?
   a. Decrease peripheral resistance and increase cardiac output.
   b. Increase peripheral resistance and decrease cardiac output.
   c. Increase peripheral resistance and increase cardiac output.
   d. Decrease peripheral resistance and decrease cardiac output.

6. Which neurotransmitter is contraindicated in hypertensive, hyperthyroid, and angina patients?
   a. Acetylcholine
   b. Noradrenaline (Norepinephrine)
   c. Adrenaline (Epinephrine)
   d. Dopamine

7. Which receptor subtype is predominantly responsible for vasoconstriction?
   a. Alpha 1
   b. Alpha 2
   c. Beta 1
   d. Beta 2
E. A+B

8. In the context of hypertension (atherosclerosis), which medication is recommended?
   a. Beta 2 agonist
   b. Alpha agonist
   c. Beta blocker
   d. Alpha blocker

9. What is the primary effect of beta 2 agonists in the vasculature?
   a. Vasoconstriction
   b. Vasodilation
   c. Increased heart rate
   d. Decreased heart rate

10. Which neurotransmitter has inhibitory effects on GI, secretions, and intestines?
   a. Acetylcholine
   b. GABA
   c. Adrenaline (Epinephrine)
   d. Dopamine

Answers:
1. b
2. c
3. c
4. a
5. D
6. c
7. E
8. c
9. b
10. c

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Case 1:

A 35-year-old patient with a history of asthma presents with acute exacerbation. Which medication would be most appropriate for acute relief of bronchoconstriction?

a. Alpha agonist
b. Beta 1 agonist
c. Beta 2 agonist
d. Alpha antagonist

Case 2:

A 45-year-old patient has both hypertension and asthma. Which medication should be avoided due to the risk of exacerbating bronchoconstriction?

a. Alpha blocker
b. Beta blocker
c. Alpha agonist
d. Beta agonist

Case :

A patient experiences a sudden increase in heart rate, dilation of bronchioles, and increased alertness. Which neurotransmitter is primarily responsible for these responses?

a. Acetylcholine
b. Noradrenaline (Norepinephrine)
c. Adrenaline (Epinephrine)
d. Dopamine
E. B+ C

Case :

In a patient with hypertension, hyperthyroidism, and angina, which neurotransmitter would be contraindicated?

a. Acetylcholine
b. Noradrenaline (Norepinephrine)
c. Adrenaline (Epinephrine)
d. Dopamine

Ans:
C
B
E

C

Case 1:

A patient experiences constriction of the pupils (miosis). Which division of the autonomic nervous system is responsible for this effect?

a. Sympathetic
b. Parasympathetic

Case 2:

In a patient experiencing excessive salivation, which drug can be administered as a cholinergic receptor antagonist?

a. Dopamine
b. Atropine
c. Epinephrine
d. Isoproterenol

Case 3:

What neurotransmitter is typically deficient in Parkinson's disease, leading to an imbalance with acetylcholine?

a. Serotonin
b. GABA
c. Dopamine
d. Norepinephrine

Case 4:

Which enzyme inhibitors are commonly used to increase dopamine levels in the treatment of Parkinson's disease?

a. Acetylcholinesterase
b. Monoamine oxidase (MAO)
c. Catechol-O-methyl transferase (COMT)
d. Tyrosine hydroxylase
E.b+c

Ans:
B
B
C
E

1- the context of autonomic pharmacology, if a drug is designed to selectively block nicotinic receptors, which of the following statements is most accurate?

a. It will enhance parasympathetic responses.
b. It will inhibit both sympathetic and parasympathetic responses.
c. It will specifically inhibit sympathetic responses.
d. It will have no significant effect on autonomic functions.

2-A patient with Parkinson's disease is prescribed a medication that inhibits both monoamine oxidase (MAO) and catechol-O-methyl transferase (COMT) enzymes. What is the primary goal of this medication, and how does it contribute to managing Parkinson's symptoms?

a. Increase dopamine levels by inhibiting its breakdown
b. Decrease acetylcholine release to balance neurotransmitters
c. Enhance norepinephrine synthesis for improved motor control
d. Block glutamate receptors to reduce excitotoxicity

3-A patient is prescribed a parasympathomimetic drug for a gastrointestinal disorder. Which receptor subtype is most likely targeted by this medication, and what specific effects can be anticipated?

a. Alpha receptors - increased heart rate
b. M3 cholinergic receptors - increased GI motility and secretions
c. Beta receptors - bronchoconstriction
d. Nicotinic receptors – vasodilation

Ans:
B
A
B

Which medication is recommended for asthma treatment due to its bronchodilator effects?
a) Albuterol
b) Atenolol
c) Prazosin
d) Atropine

What effect do cholinergic drugs typically have on the parasympathetic nervous system?
a. Vasodilation
b. Bronchodilation
c. Vasoconstriction
d. Rest and digest responses

In the context of Parkinson's disease, what is the primary neurotransmitter imbalance?
a. High dopamine, low acetylcholine
b. High acetylcholine, low dopamine
c. High serotonin, low norepinephrine
d. High GABA, low glutamate

. Which receptor subtype is predominantly responsible for mediating gastric secretions and relaxation of the lower esophageal sphincter?
a. M1
b. M2
c. M3
d. Nn

Ans:
A
D
B
A

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