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Course Name : D. Pharm

Year : Second Year

Subject Name : Pharmacology

Topic Name : Neuromuscular blocking agents

MULTIPLE CHOICE QUESTIONS

1. What is the primary mechanism of action of non-depolarizing neuromuscular blocking agents?

- A) Activation of acetylcholine receptors
- B) Inhibition of acetylcholinesterase
- C) Activation of potassium channels
- D) Blockade of nicotinic receptors

Answer: D) Blockade of nicotinic receptors

2. Which of the following drugs is a depolarizing neuromuscular blocking agent?

- A) Rocuronium
- B) Vecuronium
- C) Succinylcholine
- D) Atracurium

Answer: C) Succinylcholine

3. Depolarizing neuromuscular blocking agents primarily act by:

- A) Blocking acetylcholine receptors
- B) Activating acetylcholine receptors
- C) Inhibiting acetylcholinesterase
- D) Blocking potassium channels

Answer: B) Activating acetylcholine receptors

4. Non-depolarizing neuromuscular blocking agents are reversed using which of the following medications?

- A) Edrophonium
- B) Neostigmine
- C) Atropine
- D) Rocuronium

Answer: B) Neostigmine

5. What is the primary mechanism of action of neostigmine in reversing neuromuscular blockade?

- A) Activation of acetylcholine receptors
- B) Inhibition of acetylcholinesterase
- C) Activation of potassium channels
- D) Blockade of nicotinic receptors

Answer: B) Inhibition of acetylcholinesterase

6. Which of the following statements about rocuronium is true?

- A) It is a depolarizing neuromuscular blocking agent
- B) It has a rapid onset of action
- C) It is reversed by neostigmine
- D) It has a longer duration of action compared to succinylcholine

Answer: D) It has a longer duration of action compared to succinylcholine

7. Atracurium is metabolized by which of the following mechanisms?

- A) Renal excretion
- B) Hepatic metabolism
- C) Hydrolysis by esterases
- D) Inactivation by acetylcholinesterase

Answer: C) Hydrolysis by esterases

8. Which of the following neuromuscular blocking agents is preferred in patients with renal or hepatic impairment?

- A) Vecuronium
- B) Rocuronium
- C) Atracurium
- D) Succinylcholine

Answer: C) Atracurium

9. Cisatracurium is a(n):

- A) Non-depolarizing neuromuscular blocking agent
- B) Depolarizing neuromuscular blocking agent
- C) Intermediate-acting neuromuscular blocking agent
- D) Long-acting neuromuscular blocking agent

Answer: A) Non-depolarizing neuromuscular blocking agent

10. Which of the following neuromuscular blocking agents is metabolized primarily by Hofmann elimination?

- A) Vecuronium
- B) Pancuronium
- C) Atracurium
- D) Rocuronium

Answer: C) Atracurium

11. Which of the following statements about succinylcholine is true?

- A) It has a prolonged duration of action
- B) It is used for long-term neuromuscular blockade
- C) It may cause muscle fasciculations during administration
- D) It is primarily eliminated by hepatic metabolism

Answer: C) It may cause muscle fasciculations during administration

12. The primary mechanism of action of vecuronium is:

- A) Inhibition of acetylcholinesterase
- B) Activation of acetylcholine receptors
- C) Blockade of nicotinic receptors
- D) Activation of potassium channels

Answer: C) Blockade of nicotinic receptors

13. Which of the following neuromuscular blocking agents is associated with histamine release?

- A) Vecuronium
- B) Rocuronium
- C) Pancuronium
- D) Atracurium

Answer: C) Pancuronium

14. A patient with renal failure is undergoing surgery. Which neuromuscular blocking agent is most suitable for this patient?

- A) Succinylcholine
- B) Vecuronium
- C) Pancuronium
- D) Rocuronium

Answer: D) Rocuronium

15. Which of the following neuromuscular blocking agents is considered suitable for rapid sequence induction in emergency situations?

- A) Vecuronium
- B) Rocuronium
- C) Atracurium
- D) Pancuronium

Answer: B) Rocuronium