

Pharmacology Exam for MSc in Neurosurgery

15-62-year-old man with a herniated lumbar disc at L4 is undergoing spinal surgery to remove the injured disc. During the procedure, propofol is administered intravenously. Which of the following statements about this agent is true?

- a-Increase blood pressure.
- b-Myocardial depression.]
- c-Reduce intracranial pressure.
- d-systemic vasoconstriction

**Oral exam at 28/8/2021` at 9 am in pharmacology
department**

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9-Indicate the mechanism of hypnotic benzodiazepine action:

- a) Increasing the duration of the GABA-gated Cl⁻ channel openings
- b) Directly activating the chloride channels
- c) Increasing the frequency of Cl⁻ channel opening events
- d) All of the above.

10-Characteristics of nootropics include all of the following EXCEPT:

- a) Selective influence on the brain
- b) Improvement the ability to communicate with peers
- c) Decline in the highest integrative brain functions
- d) Increase in energetic exchange of the brain cells.

11- All of the following drugs are indirect acting anticoagulants EXCEPT:

- a) Dicumarol
- b) Warfarin
- c) Dalteparin
- d) Phenindione

12-Which of the following drugs is an inhibitor of platelet glycoprotein IIb/IIIa receptors?

- a) Aspirin
- b) Clopidogrel
- c) Ticlopidine
- d) Abciximab.

13-In patient of head injuries with rapidly increasing intracranial tension without haematoma, the drug of choice for initial management would be :

- a)Furosemide.
- b)Steroids.
- c)20%Mannitol.
- d)Glycine.

14-patient has been diagnosed to have brain tumour. you would prefer to give him betamethasone/dexamethasone over hydrocortisone as steroids to decrease his cerebral edema because :

- a)They do not cause Na⁺ and water retention.
- b)They are more potent .
- c)They can be administered intravenously.
- d)They inhibit brain tumours.

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Tanta University

Pharmacology Written Examination

Faculty of Medicine

Number of Questions: 4

Pharmacology Department

Time Allowed: 1 ½ Hour

Date: 19/8/2021

Total: 30 Marks



1-Give an account on (6 marks):

- a- Quinolones (mechanism of action, uses and contraindications).
- b-Thrombolytics (mode of action ,preparations ,indications and contraindications

2- Mention lines of treatment of the following cases (6marks)

- a- Hypertensive emergencies
- b- Trigeminal neuralgia.

3- Give reason (3 marks):

- a-Warfarin therapy is associated with dermal vascular necrosis.
- b-Morphine should not be given in large doses in treatment of cardiogenic shock.

4-MCQs (15 marks):

1-What is the reason of complicated penetration of some drugs through brain-blood barrier?

- a) High lipid solubility of a drug
- b) Meningitis
- c) Absence of pores in the brain capillary endothelium
- d) High endocytosis degree in a brain capillary.

2- Stimulation of liver microsomal enzymes can:

- a) Require the dose increase of some drugs
- b) Require the dose decrease of some drugs
- c) Prolong the duration of the action of a drug
- d) Intensify the unwanted reaction of a drug.

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3-An antagonist is a substance that:

- a) Binds to the receptors and initiates changes in cell function, producing maximal effect
- b) Binds to the receptors and initiates changes in cell function, producing submaximal effect
- c) Interacts with plasma proteins and doesn't produce any effect
- d) Binds to the receptors without directly altering their functions

4-Compared with epinephrine, norepinephrine produces all of the following effects EXCEPT:

- a) Similar effects on beta1 receptors in the heart and similar potency at an alpha receptor
- b) Decrease the mean pressure below normal before returning to the control value
- c) Significant tissue necrosis if injected subcutaneously
- d) Increase both diastolic and systolic blood pressure.

5-Which of the following antiseizure drugs produces enhancement of GABA-mediated inhibition?

- a) Ethosuximide
- b) Carbamazepine
- c) Phenobarbital
- d) Lamotrigine.

6-Chemical mediators in the nociceptive pathway are all of the following EXCEPT:

- a) Enkephalins
- b) Kinins
- c) Prostaglandins
- d) Substance P

7-Select the narcotic analgesic, which is an antagonist or partial mu receptor agonist:

- a) Fentanyl
- b) Pentazocine
- c) Codeine
- d) Methadone.

8-Which of the following opioid analgesics is used in combination with droperidol in neuroleptanalgesia?

- a) Morphine
- b) Buprenorphine
- c) Fentanyl
- d) Morphine.