

# CNS-Pharmacology

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Archive

Lecture 1

General Anesthesia

Collected By :

Mohammad Mousa

# CNS-Pharmacology **Lecture 1**

1. Which of the following is wrong about anesthesia?

A patient may experience delirium and violent behavior in stage III of anesthesia

2. Regarding ketamine: Which one of the following is false? Select one:

- a. It produces analgesia with hypnosis; however, the eyes remain open.
- b. It is derived from phencyclidine and block NMDA glutamate receptors
- c. It increases blood pressure as well as intracranial and intraocular pressures
- d. It may produce delirium and hallucinations on recovery
- e. It increases respiratory rate and lowers PaCO<sub>2</sub>.

Answer: e

3. Anesthetic drug which has a good analgesic effect + act as a strong bronchodilator?

Answer : Ketamine

4. Which of the following anesthetic drugs cause hepatic toxicity?

Answer : Halothane

5. General anesthesia MOA?

- a. Direct act at GABA-A
- b. Potentiate GABA in GABA-A with no direct effect on NMDA receptor
- c. Activation of nicotine on K<sup>+</sup> currents
- d. Increase chloride efflux

Answer: a

6. Which of the following drugs is contraindicated in a stroke case?

- a. Ketamine
- b. Halothane
- c. Desflurane

Answer: a

# CNS-Pharmacology **Lecture 1**

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**Halothane and sevoflurane inhalation anesthetics: Which one of the following is false?**

- a. Sevoflurane is chemically unstable; it decomposes on contact with lime water.
- b. Sevoflurane produce faster induction of anaesthesia than halothane.
- c. Sevoflurane has pleasant smell, and produces less respiratory depression
- d. Halothane causes higher incidence of ventricular arrhythmia.
- e. Metabolism of sevoflurane in liver produces large amount of fluoride radicals.

**Something false about halothane?**

Potent anesthetic and strong analgesic

**Which of the following is not true about anesthetics?**

Opioids cause hypertension and respiratory depression

**The following side effects may be observed with halothane except? Select one:**

- a. Hypotension.
- b. Jaundice
- c. Diffusion anoxia
- d. Ventricular premature contractions.
- e. Hypercapnia

**Answer: e**

**Which one of the following is false about isoflurane?**

- a. It has a pleasant smell.
- b. It has lower blood solubility than halothane
- c. It lowers blood pressure due to lowering of total peripheral resistance.
- d. It can be used with CO<sub>2</sub> absorption system (lime water) in the semiclosed method
- e. It depresses respiration insignificantly

**Ans:(d)**

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## Archive

### Lecture 2

#### Sedative hypnotics (1) Benzodiazepines and related drugs

Corrected By :

X

# CNS-Pharmacology **Lecture 2**

1. False about adverse effect of benzodiazepines?

- a. Decrease reaction time
- b. Motor incoordination
- c. Confusion
- d Fatigue
- e. amnesia

Answer: A

2. Which of the following is not used as a hypnotic?

- A. Amphetamine
- B. Zolpidem
- C. Zaleplon
- d. Eszopiclone

Answer: A

3. Which of the following is incorrect about benzodiazepines?

- a. Safe to use with alcohol
- b. Motor incoordination
- c. Confusion
- d Fatigue
- e. amnesia

Answer: A

4. All are false according to sedative hypnotics EXCEPT :

- a. Phenobarbital long acting on Cl channels
- b. Lorazepam activate GABA A directly

Answer: B

# CNS-Pharmacology **Lecture 2**

5. Which one of the following is false about benzodiazepines?

- a. They increase entry of chloride ions into neurons acted upon by GABA.
- b. They can cause skeletal muscle 1 relaxation.
- c. They can cause psychomotor slowing.
- d. They can reduce delusions and hallucinations in psychotic patients.
- e. Use of large doses can induce sleep and cause anterograde amnesia.

**Answer: D**

6. The following may be adverse effects of therapeutic doses of BDZs except?

- a. Impaired cognition and judgement.
- b. Hangover.
- c. Respiratory depression.
- d. Enhancement of CNS depressant action of 1 ethanol.
- e. Disinhibition.

**Answer: C**

7. Zolpidem: Which one of the following is false?

- a. It has low incidence of dependence.
- b. It is not helpful for jet-lag insomnia.
- c. It does not bind to BDZ receptors when the GABA-A receptor contains alpha2-subunits.
- d. It has skeletal muscle relaxing and anticonvulsant action.
- e. It is a hypnotic that does not produce hangover or rebound insomnia after sleep.

**Answer: D**

8. The following have active hepatic metabolite except?

- a. Alprazolam.
- b. Lorazepam.
- c. Diazepam.
- d. Chlordiazepoxide.
- e. Flurazepam

**Answer: B**

# CNS-Pharmacology **Lecture 2**

9. All of the following is true about flumazenil except: Answer:  
Patients with suspected benzodiazepine overdose should respond adequately to a cumulative dose of 1-50 mg given over 2-10 minutes

10. One of the following is INCORRECT?  
Zolpidem use in acute anticonvulsant

11. Patient taking 2 tablets from lorazepam, doctor says he is in toxicity state, what appropriate action?

- A) Gastric lavage
- B) IV Flumazenil
- C) IV sodium bicarbonate

Answer: B



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Lecture 3

X

Corrected By :

X



# CNS-Pharmacology **Lecture 3**

1. Buspirone is ?

- a. Anxiolytic drug
- b. causing marked sedative
- c. causing euphoric effects
- d. causing hypnotic
- e. all are true

Ans :(a )

2. Hypnotic drug which has long term management ?

Answer : Phenobarbital

2. False about adverse effect of benzodiazepines ?

- a. Decrease reaction time
- b. Motor incoordination
- c. Confusion
- d. Fatigue
- e. amnesia

ans :(a )

3. GABA main function ?

- 1) main inhibitory \*
- 2) main excitatory

4. All the following is incorrect about buspirone except

Answer: The drug is used in generalized anxiety states but is less effective in panic disorders

5. all are antidepressants except

- A) Selective serotonin re-uptake inhibitors (SSRIs)
- B) Atypical antidepressants
- c) serotonin / norepinephrine re-uptake inhibitors (SNRIS)
- D) glutamate excitation
- e) Monoamine oxidase inhibitors (MAOs)

ans:(d)

6. All are false according to sedative hypnotics EXCEPT

- A. Phenobarbital long acting on Cl channels
- B. Lorazepam activate GABA directly

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Lecture 4

Antiepileptic Drugs

Collected By :

Mohammad Mousa

# CNS-Pharmacology **Lecture 4**

1.The following adverse effects match except?

- a. Phenytoin: Hypertrophy of the gums.
- b. Carbamazepine: worsening of petit mal and myoclonic epilepsy.
- c. Vigabatrin: constriction of visual field.
- d. Topiramate: myopia and glaucoma
- e. Sodium valproate: impaired cognition in children

Answer: d

2.Regarding diazepam : Which one of the following is true?

It is effective for stopping convulsions of status epilepticus

3.The followings are useful for treatment epilepsy except?

- a. Clonazepam.
- b. Valproate.
- c. Pregabalin.
- d. Gabapentin
- e. Oxycodone

Answer: e

4.All are Mechanisms of action of antiepileptic drugs except?

- a. Block sodium channels
- b. Block calcium channels
- c. Enhance inhibitory GABAergic impulse
- d. Interference with glutamate
- e. Selective serotonin reuptake inhibitor

Answer: e

5.Which of the following is a Ca channel blocker?

- a. Valproic acid
- b. carbamazepine
- c. benzodiazepines
- d. Tiagabine

Answer: a

# CNS-Pharmacology **Lecture 4**

6. Which of the following isn't a Na channel blocker?

- a. Phenytoin
- b. Valproic acid
- c. lamotrigine
- d. benzodiazepines

Answer: d

7. Valproic acid mechanisms ?

- A) Inhibition of GABA transaminase
- B) prolong Na<sup>+</sup> channels activation
- C) activation of Ca<sup>+</sup> channels

Answer: a

8. Which of the following is false about anti-epileptic drugs? Select one:

- a. Carbamazepine blocks voltage dependent sodium channels in the inactivated state.
- b. Vigabatrin and valproate increase brain GABA level by inhibiting its catabolism.
- c. Levetiracetam blocks NMDA glutamate receptors.
- d. Ethosuximide blocks T-type calcium channels in thalamic neurons.
- e. Topiramate enhances endogenous GABA activity after binding to GABA-A receptors.

Answer: c

9. The following are adverse effects of sodium valproate when used in epilepsy except?

- a. Impaired cognition.
- b. Hepatitis.
- c. Alopecia.
- d. Increase in weight
- e. Increased blood level of lamotrigine.

Answer: e

10. The following are useful for classical petit mal (**Absence seizures**) epilepsy except?

- a. Clonazepam.
- b. Valproate.
- c. Ethosuximide.
- d. Levetiracetam.
- e. Tiagabine.

Answer: e

# CNS-Pharmacology **Lecture 4**

11. Carbamazepine: Which one of the following is false?

- a. It induces hepatic microsomal enzymes which shortens its own half-life
- b. It is useful for chronic control of both grand mal and partial epilepsy.
- c. It is first choice drug for treatment of trigeminal neuralgia in adults.
- d. It can cause dizziness and diplopia as side effects at beginning of its use.
- e. It inhibits repetitive neuronal firing by increasing brain GABA level.

Answer: e

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The following may be useful in treatment of **myoclonic epilepsy** except?

- a. Clonazepam.
- b. Oxcarbazepine
- c. Lamotrigine.
- d. Topiramate

Answer: b



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Lecture 5

Anti-Parkinson Drugs

Collected By :

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# CNS-Pharmacology **Lecture 5**

1. Which of the following drugs isn't a dopamine receptor agonist?

- A) Selegiline
- B) Bromocriptine
- C) Apomorphine
- D) Pramipexole

Answer: a

2. All the following are true about Levodopa except?

- a. Levodopa is a metabolic precursor of dopamine
- b. Levodopa causes motor control fluctuations
- c. Levodopa crosses the blood-brain barrier
- d. It is carboxylated to dopamine in the periphery
- e. It causes nausea, vomiting, cardiac arrhythmias, and hypotension

Answer: d

3. Which of the following is not used for Parkinson?

- a. Levodopa
- b. Dopamine agonists
- c. Dopamine antagonists
- d. Rasagiline

Answer: c

4. All of the following is an anti-Parkinson drug except :

- a. Levodopa
- b. Amantadine
- c. Bromocriptine
- d. Serotonin
- e. tolcapone

Answer: d

5. Which of the following drugs is a Monoamine Oxidase Inhibitor?

- a. Citalopram
- b. selegiline
- c. Amitriptyline
- d. Doxepin

Answer: b

# CNS-Pharmacology **Lecture 5**

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All the following are true except? Select one:

- a. Carbidopa increases the availability of levodopa to the CNS
- b. Concomitant administration of levodopa and monoamine reductase (MAO) inhibitors
- c. Selegiline decreases metabolism of dopamine and increases dopamine levels in brain
- d. Catechol-O-methyltransferase metabolizes levodopa to 3-O-methyldopa
- e. Rotigotine activates the dopamine receptors to in patients with advanced Parkinson's disease complicated by motor fluctuations and dyskinesias

Ans:(e)

One of the following is catechol O methyltrabsferase inhibitor?

- a. Entacapone
- b. Selegiline
- c. Bromocriptine
- d. Rotigotine
- e. Apomorphine

Ans:(a)

All the following are true except?

- a. Benztropine, trihexyphenidyl, procyclidine and biperiden are antimuscarinic agents
- b. Amantadine has several effects including Inhibiting N-methyl-D-aspartate type of glutamate receptors
- c. Rotigotine has duration of action longer than that of levodopa and therefore less effective in patients exhibiting fluctuations in their response to levodopa
- d. Antimuscarinic agents interfere with gastrointestinal peristalsis and are contraindicated in patients with glaucoma, prostatic hyperplasia, or pyloric stenosis.
- e. Stalevo is an excellent combination of drugs for the management of Parkinson disease

All the following are true except? Select one:

- a. Haloperidol and pramipexole antagonize the dopamine receptors and causes secondary parkinsonism
- b. Levodopa is a metabolic precursor of dopamine restoring dopaminergic system by enhancing synthesis of dopamine
- c. levodopa is actively transported into CNS and is converted to dopamine in brain
- d. Carbidopa diminishes metabolism of levodopa in gastrointestinal tract and peripheral tissues; thus, it increases availability of levodopa to CNS
- e. Levodopa has short half-life causing fluctuations in plasma concentration and may produce — fluctuations in motor response

Ans:(c)

Ans:(a)

5.Which one is Catechol-O-methyltransferase inhibitor?

Tolcapone



# CNS-Pharmacology **Lecture 5**

الأسئلة التالية هي أرشيف سابق وهي لا تتعلق بشكل مباشر مع المحاضرات السنة الحالية

One of the following is catechol O methyltransferase inhibitor?

- Entacapone \*\*
- Seligiline
- Bromocriptine
- Rotigotine
- Apomorphine

All the following are true except?

- Benzotropine, trihexyphenidyl, procyclidine and biperiden are antimuscarinic agents
- Amantadine has several effects including Inhibiting N-methyl-D-aspartate type of glutamate receptors
- Rotigotine has duration of action longer than that of levodopa and therefore less effective in patients exhibiting fluctuations in their response to levodopa
- Antimuscarinic agents interfere with gastrointestinal peristalsis and are contraindicated in patients with glaucoma, prostatic hyperplasia, or pyloric stenosis
- Stalevo is an excellent combination of drugs for the management of Parkinson disease

Answer: c



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# CNS-Pharmacology

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Lecture 6

Antidepressant Drugs

Collected By :

Mohammad Mousa

# CNS-Pharmacology **Lecture 6**

1. Which of the following is not an anti-depressant?

- a. Selective serotonin reuptake inhibitors
- b. Serotonin norepinephrine reuptake inhibitor
- c. Atypical antidepressants
- d. Excitatory glutamate inhibitor
- e. MAO inhibitors

Answer: d

2. Which of the following is not an SSRI?

- a. Fluoxetine
- b. Citalopram
- c. Duloxetine
- d. Sertraline

Answer: c

3. One of the following matches is WRONG? Select one:

- a. SSRIs: Escitalopram
- b. SNRIs: Venlafaxine
- c. Atypical antidepressants: Phenezine
- d. Tricyclic antidepressants: Amitriptyline
- e. MAO inhibitors: Selegiline

Answer: c

4. All following about antidepressants are TRUE EXCEPT?

- a. SSRIs have replaced the use of TCAs and MAO inhibitors
- b. SNRIs effective in treatment of neuropathic pain
- c. Imipramine is useful in treatment of bed-wetting in children
- d. MAO inhibitors use is limited because of complicated dietary restrictions
- e. MAO inhibitors and SSRIs can be co-administered together

Answer: e

5. All following about antidepressants are TRUE EXCEPT?

- a. All antidepressants carry a risk of suicidal thoughts in teenagers
- b. SNRIs have no activity at muscarinic and histaminic receptors
- c. Tricyclic antidepressants block alpha-adrenergic, histamine and muscarinic receptors
- d. MAO inhibitors adverse effects: orthostatic hypotension and dry mouth
- e. Serotonin syndrome manifestations: muscle rigidity and confusion

Answer: a

# CNS-Pharmacology **Lecture 6**

6. Selective serotonin reuptake inhibitors, one is FALSE?

- a. Have little blocking activity at muscarinic, alpha-adrenergic, and histaminic receptors
- b. Safe in overdose
- c. Half-life 16-36 hours
- d. It takes 4 weeks to produce significant improvement in mood
- e. Adverse effects: delayed ejaculation

Answer: d

7. Which of the following is an SNRI?

- a. Fluoxetine
- b. Amitriptyline
- c. Venlafaxine
- d. Bupropion

Answer: c

8. A 36 year old patient smokes 2 packs of cigarettes a day, he tried to stop smoking by using nicotine patches but he was unsuccessful, what medication would be beneficial in this case ?

- a. Phenezine
- b. Bupropion
- c. Imipramine
- d. Buspirone
- e. Citalopram

Answer: b

9. One of the following is a norepinephrine & serotonin reuptake inhibitor

- a. citalopram
- b. Venlafaxin
- c. Fluvoxamine
- d. Sertraline

Answer: b