الفرقة الثالثة
فارما
دور أول

Sohag University
Faculty of Medicine
Department of Pharmacology

22 /6/ 2017

Time allowed: 3 hours

I) Answer the following questions: **(30 Marks)**

(1)Give an account on mechanisms of action, therapeutic uses and side effects of **Clonidine.**

(2)**Antiepileptic** drugs examples and mechanism of action.

(3)Classification and therapeutic uses of **Calcium channel blockers.**

(4)Give an account on **Morphine**": therapeutic uses, contraindications.

(5)Discuss the side effects and contraindications **of Oral contraceptives.**

II) Answer the following structure questions: **(30 Marks)**

(6) Discuss with examples the mechanisms of resistance to **antibacterial drugs.**

(7)Give an account on the treatment of acute **Organophosphorous poisoning.**

(8)Enumerate five of side effects of **Amiodarone.**

(9)Enumerate five of therapeutic uses of **Metronidazole.**

(10)Discuss the therapeutic uses of**Cimitidine.**

(11)Enumerate drugs used in treatment of **Status asthmatics.**

III-Select the most appropiot answer for the following MCQ: **(15 Marks)**

1-First line antituberculous drugs include all of the following except:

A. Isoniazide B.Ethionamide
C.Rifampin D.Pyrazinamide

2-The drug of choice for treatment of petit mail epilepsy:

A. Phenytoin. B. Ethosuxamide.
C. Phenobarbital. D. Carbamazepine.

3-Bromocriptine is indicated in all the following conditions except:

A. Prolactin secreting tumors. B. Parkinsonism.
C. Prolactin deficiency. D. Acromegaly.

4- Toxicity of thrombolytic drugs is treated by:

A. Aminocaproic acid. B. Vitamin K.
C. Protamine sulphate. D. Fresh plasma transfusion.

5-Which of the following is the general mechanism of action for erythromycin:

A. inhibition of a metabolic enzyme
B. inhibition of cell wall synthesis
C. disruption of protein synthesis
D. inhibition of nucleic acid transcription and replication.

6-The following drug can be used in the treatment of Alzheimer'sdisease:

A.Phentolamine. B. Memantine.
C.Ephedrine. D. Carbachol.

7-One of the following drugs is an intrinsic plasminogen activator:

A.Streptokinase B.Clopidogrel
C. Warfarin D.Alteplase

8-Hypertensive crisis occurs with sudden withdrawal of

A. verapamil B. clonidine
C.guanethedine D. thiazides.

9-Gemfibrozil decreases the hepatic synthesis of VLDL by one of the following mechanisms:

A.Inhibits HMG coAreductase enzyme.
B. Activates PPARs receptors.
C.Decrease VLDL absorption.
D.None of the above.

10- The following drugs cannot stop the progression of Parkinsonism <u>Except</u>:

A- Levodopa B-Sinemet
C-Bromocriptine D-Selegiline

11-The following are passive processes of passage of drugsthrough cell membranes <u>Except</u>:

A. Simple diffusion B. Endocytosis
C. Facilitated diffusion D. Filtration

12-Patients receiving thiazides must receive a diet rich in:

A- sodium B- potassium. C-calcium. D- magnesium.

13-Acetylcholine is not used in clinical practice because:

A. It is very toxic.
B. The dose which required are very high.
C. It is very rapidly hydrolysed.
D. It is very costly.

14-Regarding Receptor down-regulation, all the following statements are TrueEXCEPT:

A. Results from long-term exposure of cells with agonist.
B. Results from long-term exposure of cells to antagonists.
C. Causes a decrease in the response to the drug.
D. Repeated use of β-adrenergic stimulant drugs for treatment of bronchial asthma is an example.

15-Bisphosphonates are beneficial in the following conditions except:

A-Paget's disease. B-Senile osteoporosis
C-Rickets. D-Osteolytic bony metastasis

IV-Read the following statements carefully and choose the letter"T"for thetrue statement &"F"for the false one: (15 Marks)

1- Minoxidil is used topically to stimulate hair growth in alopecia.

2- Salmeterol can be used in the treatment of acute bronchial asthma.

3- Verapamil better used with β blocker in treatment of angina pectoris.

4- Children are more sensitive to drug action mainly due to their immature liver enzyme and less effective renal excretion.

5- Tamoxifen is useful in treatment of postmenopausal women with estrogen receptor negative metastatic breast cancer.

6- GABA is the major inhibitory neurotransmitter in the mammalian CNS

7- Digoxin is 1st drug of choice in treatment of heart failure with atrial fibirillation.

8- Denosumab is a monoclonal antibody that blocks the action of RANKL, this reduces osteoclast proliferation and activation.

9- Adenosine given by bolus IV injection is the drug of choice in ventricular dysrhythmias.

10- Tetracyclines can be given safely to children below 8 years.

11- Short acting atropine substitutes are used in fundus examination.

12- Physostigmine is a direct parasympathomimetics drug.

13- Dopamine can pass the Blood brain barrier easily.

14- Barbiturates increase blood levels of co-administered drugs.

15- Mannitol is contraindicated in patients with hypertension and heart failure.

V-**Mr. F K is a 67-years old was presented to the clinic with a case of muscle tremors and regedity , mask face, bradykinesia. This case was diagnosed with Parkinsonism.** **(10 Marks)**

1) One of the following drugs was prescribed as the drug of choice for this case:

A-Dopamine. B- Levodopa.
C-Atropine sulfate. D- Chlorpromazine.

2) The drug you selected in item (1) would lead to the following Except:

A. It increases the amounts of dopamine in the basal ganglia.
B. It has greater benefit during the first few years of treatment.
C. It increases the amounts of acetyl choline in basal ganglia.
D. It can cross the blood brain barrier by amino acid transport system.

3) All the following drugs contraindicated in Parkinsonism Except:

A. Chlorpromazine. B. Metclopramide.
C. Benztropine. D. Reserpine.

4)If the case not appropriately controlled by the previous drug, we can add one of dopaminergic receptor agonist as:

A.Selegiline. B.Pramipexole.
C.Benztropine. D.Tolcapone.

5) The combined administration of cabidopa with levodopa will afford all the following advantages Except:

A. Prolongation of its duration of action.
B. Dose reduction.
C. Reduced side effects.
D. Reduced CNS actions.

-M.A is a 50 years old man who suffer from severe retrosternal pain. He was diagnosed as a patient with Angina Pectoris: **(10 Marks)**

1-All the following drugs are used to treat this case EXCEPT:-

A. Verapamil. B.Nirtoglycrine
C. Propranolol. D. Hydralazine.

2-The previously selected drug act through ONE of the following mechanisms:-

A. Block Ca^{++} channels. B. β- adrenergic receptor blocker.
C. Arterial dilator. D. Non of the above.

3-The previously selected drug has the following side effects EXCEPT:

A.Salt and water retention. B. reflex tachycardia.
C. Lupus syndrome. D.Non of the above.

4-ONE of the following drug better to added to drugs in treatment of angina:

A. Diazoxide. B. Aspirin.
C. Digoxin. D. Sodium nitoprusside.

5-The drug selected in question (4) act through one of the following mechanisms:

A. Arterial dilator. B. Positive inotropic.
C. Antiplaelet effect. D. Arteriovenous dilator.

A. 50years old man is complaining of polyuria, polydipsia, weakness and elevated fasting blood glucose level. He has been recently diagnosed to suffer from diabetes mellitus. **(10 Marks)**

1-The following advice can be introduced to the patient EXCEPT:

A. Avoid exposure to stress.
B. Control the diet.
C. Stop smoking.
D. Eatlarge amount of sweets.

2-We can prescribe the following drug to the patient:

A. Protamine zinc insulin.
B.Gliclazide.
C. Soluble insulin.
D.Chloropromazine.

3-The principle mechanism of action of the previously selected drug is:

A. It increases the secretion of insulin from the pancreas.
B. It decreases the absorption of glucose from GIT.
C. It activates the alpha subunit of tyrosine kinase receptor.
D. None of the above.

4-Two months later the patient stopped the medication and developed unconscious, acetone smell, we can treat this case by:

A. Adrenaline I.V.
B. Glucose I.V.
C. Protamine zinc insulin S.C.
D. Regular insulin I.V.

5-The following adverse effect can be produced by the drug selected in previous question Except:

A. Hypoglycemia.
B.Hyperglycemia.
C. Edema.
D.Lipodystrophy.

الفرقة الثالثة
فارما
دور ثانى

Sohag University
Faculty of Medicine
Department of Pharmacology

28/8/ 2017

Time allowed: 3 hours

I) Answer the following questions: **(50 Marks)**

(1) Give an account on mechanism of action, adverse effects and therapeutic uses of **Fluoroquinolones"**

(2) Discuss the mechanism of action, therapeutic uses, and side effects of **Phenytoin.**

(3) Discuss the complications of **Insulin** therapy.

(4) **Bisphosphonates:** classification, mechanism of action and side effects.

(5) Discuss the mechanism of action, therapeutic uses, and side effects of **Nitroglycerin.**

II) Answer the following structure questions: **(40 Marks)**

(6) Mechanism of action and side effects of **Candesartan.**

(7) Give an account on the **On-off phenomenon.**

(8) Enumerate the side effects of **Furosemide.**

(9) Mechanism of action and therapeutic uses of **Benzodiazepines.**

(10) Enumerate the therapeutic uses of **Aspirin.**

(11) Enumerate drugs used in treatment of **Status asthmatics.**

(12) Discuss Therapeutic uses of **Atropine.**

(13) Enumerate the Therapeutic uses of **Heparin.**

III-Select the most appropiot answer for the following MCQ: (20Marks)

1- Which of the following is a selective estrogen receptor modulator:

A-methotrexate B-letrozole

C-clomiphene citrate D-tamoxifen

2- The drug of choice for treatment of petit mail epilepsy:

A. Phenytoin. B. Ethosuxamide.

C. Phenobarbital. D. Carbamazepine.

3- Streptomycin has the following side effects:

A-cardiotoxicity B-hepatotoxicity

C-retrobulbar neuritis D-ototoxicity, nephrotoxicity

4- Which of the following is the general mechanism of action for azethromycin:

A-inhibition of a metabolic enzyme

B-inhibition of cell wall synthesis

C-disruption of protein synthesis

D-inhibition of nucleic acid transcription and replication.

5-The following drug can be used in the treatment of Alzheimer's disease:

A.Phentolamine. B. Memantine.

C.Ephedrine. D. Carbachol.

6-One of the following drugs is an intrinsic plasminogen activator:

A. Streptokinase B. Clopidogrel

C. Warfarin D. Alteplase

7-Hypertensive crisis occurs with sudden withdrawal of

A. verapamil B. clonidine

C. guanethedine D. thiazides.

8-Gemfibrozil decreases the hepatic synthesis of VLDL by one of the following mechanisms:

A. Inhibits HMG coA reductase enzyme.

B. Activates PPARs receptors.

C. Decrease VLDL absorption.

D. None of the above.

9- Side effects of hydralazine not include:

A-headache B-flushing.

C-tachycardia. D-bradycardia

10- The following drug is used in hypertensive emergencies:-

A-reserpine. B-alpha methyl dopa

C-sodium intraprusside D- atenolol

IV-Read the following statements carefully and choose the letter"T"for the true statement &"F"for the false one: (20 Marks)

11- β -adrenergic blockers can be used safely in treatment of Prinzmetal angina.

12- Tamoxifen is useful in treatment of postmenopausal women with estrogen receptor negative metastatic breast cancer.

13- GABA is the major inhibitory neurotransmitter in the mammalian CNS

14- ACEIs are the first drug of choice in treatment of heart failure with atrial fibirillation.

15- Hypertensive patient with angina pectoris must avoid drugs producing reflex sympathetic stimulation.

16- Fenoldopam is a peripheral arteriolar dilator used for hypertensive emergencies and acts primarily as an agonist of dopamine D1 receptors.

17- Tolcapone which used in treatment of Parkinsonism is less potent and shorter duration than entecapone.

18- Mannitol is contraindicated in patients with hypertension and heart failure.

19- Edrophonium is one of reversible anti-cholinestrase drugs.

20- Pralidoxime is contraindicated in treatment of organophosphorous poisoning.

V- Mr ME is 55 years old compliant from muscle tremor, rigidity and bradykinesia. This case was dignosed as parkinsonism.

1- One of the following drugs can be prescribe to this patient:
   a) α –methyl dopa
   b) Levodopa
   c) Metoclopramide
   d) Reserpine

2- One of the following disadvantages is produced by the drug you selected in the previous question
   a) Its absorption is delayed with high protein diet
   b) Only 1-3% of the administered drug enter the brain unaltered
   c) Given in large amount when used alone
   d) All of the above

3- The drug you selected in item (1) is usually administered concurrently with one of the following agents
   a) Benzotropine b)Amphetamine
   c) Carbidopa d) Amitriptyline

4- One of the following drugs has beneficial effect in slowing the disease progression
   a) Selegiline b) Levodopa
   c) Benzotropine d)None of the above

5- One of the following is true about the drug you selected in the previous question
   a) May cause insomnia when taken later during the day
   b) Retard the breakdown of dopamine
   c) It's a MAOIs
   d) All of the above

-M.A is a 50 years old man who suffer from severe retrosternal pain. He was diagnosed as a patient with Angina Pectoris: (10 Marks)

1-All the following drugs are used to treat this case EXCEPT:-
   A. Verapamil. B.Nirtoglycrine
   C. Propranolol. D. Hydralazine.

2-The previously selected drug act through ONE of the following mechanisms:-
   A. Block Ca^{++} channels. B. β- adrenergic receptor blocker.
   C. Arterial dilator. D. Non of the above.

3-The previously selected drug has the following side effects EXCEPT:
   A.Salt and water retention. B. reflex tachycardia.
   C. Lupus syndrome. D. Non of the above.

4-ONE of the following drug better to added to drugs in treatment of angina:
   A. Diazoxide. B. Aspirin.
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