M.Sc Orthopedic Exam.

Pharmacology department Faculty of Medicine Tanta University

Date: 22-2-2018
Time allowed: 1 hour
Number of Questions: 4

Total: 30 marks



Answer all the following questions

- 1. Give an account on: [6 marks]
 - a- Cephalosporins (classification , mechanism of action , adverse effects).
 - b- DMARDs (disease modifying anti-rheumatic drugs).
- 2. Mention the lines of treatment of the following cases: [6 marks]
 - a. Osteoarthritis.
 - b. Septic shock ..
- 3. Give reason: [3 marks]
 - a-Tea and coffee are allowed in gout .
 - b-Hepatic and renal functions should be taken in consideration before drug administration.
 - c-Use of misoprostol in prevention of NSAIDs ulceration.

4. M.C.Q.: [15 marks]

- 1- Indicate the narcotic analgesic, which is natural agonist:
 - a-Meperdine
 - b-Fentanyl.
 - c-Morphine.
 - d-Naloxone.

2-All are true about calcitonin **EXCEPT**:

- a- Is hypocalcemic hormone.
- b-Decrease bone resorption.
- c-Decrease active renal reabsorption of calcium and phosphate.
- d-Has no analgesic effects on bone pain and fractures.

3-Which of the following glucocorticoids produces the least sodium retention:

- a-Corticosone.
- b-Hydrocorticosone.
- c-Prednisolone.
- d-Dextramethasone.

∠-Mechanism of action of anti-inflammatory effect of cortisol is by all of the following EXCEPT:

- a-Synthesis of lipocortin-1.
- b-Decrease formation of inflammatory mediators e.g.TNFα.
- c-Increase migration of leucocytes to site of inflammation.
- d-Decrease capillary permeability & inflammatory edema.

- 5- Iminepem is combined with Cilastatin to:
 - a- Increase spectrum.
 - b- Decrease chance for resistance.
 - c Decrease hydrolysis.
 - d- Decrease dose requirement.
- 6-Among NSAIDs, aspirin is unique because it :
 - a-Irreversibly inhibits its target enzyme.
 - b-Prevents episodes of gouty arthritis with long term use.
 - c-Reduces fever.
 - d-Reduces the risk of colon cancer.
- 7-Which of the following drugs is MOST likely to increase serum concentrations of conventional doses of methotrexate, a weak acid that is primarily cleared in urine?
 - a-Acetaminophen.
 - b-Allopuranol.
 - c-Colichicine.
 - d-Probencide.
- 8-Over the next 7 mo, the patient had 2 more attacks of acute gout ,her serum concentrations of uric acid was elevated .The decision was made to put her on chronic drug therapy to try to prevent subsequent attaches .Which of the following drugs could be used to decrease this women,s rate of production of uric cid?
 - a-Allopurinol.
 - b-Aspirin.
 - c-Colichicine.
 - d-Hydroxychloroquine.
- 9- A drug that is routinely added to calcium supplements and milk for the purpose of preventing rickets in children and osteomalacia in adults is :
 - a-Calcitrol.
 - b-Cholecalciferol
 - c-Gallium nitrate.
 - d-Plicamycin.
- 10- A drug that is useful for the treatment of hypercalcemia in Paget's disease is :
 - a-Fluoride.
 - b-Hydrochlorothiazide.
 - c-Pamidronate.
 - d-Raloxifene.
- 11-Which antibiotic is a potent inducer of hepatic drug metabolizing enzymes:
 - a. Ciprofloxacin.
 - b. Erythromycin.
 - c. Rifampicin.
 - d. Tetracycline.

12- A55- year old surgeon has developed symmetric early morning stiffness in his hands ,he wishes to take a non steroidal anti – inflammatory drug to relieve these symptoms ,which drug is an NSAID that is appropriate for chronic therapy for his arthritis:

- a- Colichicine.
- b- Hydroxychloroquine.
- c- Ibuprofen.
- d- Indomethacin.
- 13- An agent that can readily cause edema if released or injected near capillaries is :
 - a-Angiotensin II.
 - b-Epinephrine.
 - c-Histamine.
 - d-Serotonin.
- 14- Which effect of morphine is established to be mediated via activation of mu receptors?
 - a- Cough suppression.
 - b- Elevation of arterial Pco2.
 - c- Mydriasis.
 - d- Relaxation of vascular smooth muscle.
- 15- Because the mortality rate approaches 50% in patients who develop sepsis caused by pseudomonas aeruginosa, it is usually advise to use a combination of antibiotics known to have synergistic activity against this microorganism. Which pair of antibiotics is established to be synergistic against?:
 - a-Ampicillin and tobramycin.
 - b-Cefepime and vancomycin.
 - c-Ciprofloxacin and ampicillin.
 - d-Tobramycin and ticarcillin/clavulanate.

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