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بسم الله الرحمن الرحيم

DOPAMINE SCIENTIFIC TEAM

Past Papers

Final | Lectures 1-12

﴿ قُلْ بِفَضْلِ ٱللَّهِ وَبِرَحْمَتِهِۦ فَبِذَٰلِكَ فَلْيَفْرَحُوا۟ هُوَ خَيْرٌ مِّمَّا يَجْمَعُونَ ﴾

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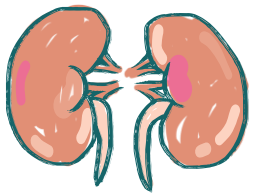

Reviewed by: Tala Assaf

Note that this file includes questions from batch **022** by **Dr. Yacoub** & questions from 021 & previous batches by Dr. Suhail. So some questions may differ slightly from our material. We included the most relevant questions to our material for practice purposes.

Questions by **Dr. Yacoub** are highlighted (Q).

وكل عام وأنتم بخير :)

Lectures 1-3:
Diuretics

Q: Which of the following drugs excretes weak acid drugs:

A) Furosemide

B) Spironolactone

C) Acetazolamide

D) Hydrochlorothiazide

Ans: C

Q: The most dangerous side effect of loop diuretics:

A) Hypokalemia

B) Hypocalcemia

C) Allergic reaction

D) Hyperuricemia

E) Hyperglycemia

Ans: A

Q: Inhibition of NKCC2, the luminal Na+/K+/2CI- transporter in the TAL of Henle's loop is the mechanism of action of:

A) Conivaptan.

B) Dorzolamide.

C) Furosemide.

D) Indapamide.

E) Triamterene

Ans: C

Q: The site of action of acetazolamide:

A) Distal convoluted tubule.

B) Proximal convoluted duct.

C) Collecting ducts.

D) Loop of Henle.

Ans:B

Q: Which of the following is wrong about loop diuretics?

A) They have high ceiling

B) They are ineffective in patients with renal impairment

C) They include furosemide and ethacrynic acid

D) NSAIDs can interfere with their actions

Ans:B

Q: Hyperglycemia is a side effect associated with the use of :

A) Thiazides diuretics.

B) Loop diuretics.

C) Carbonic anhydrase inhibitors.

D) Antidiuretic hormone antagonists.

E) Potassium-sparing diuretics

Ans: A & B

Q: True about acetazolamide:

Ans: excretes weak acid drugs

Q: Hypocalcemia is a side effect of furosemide

A) True

B) False

Ans: A

Q: Ethacrynic acid is a loop diuretic

A) True

B) False

Ans:A

Q: Carbonic anhydrase enzyme inhibitors could be used in the management of weak acids toxicity

A) True

B) False

Ans: A

Q: The diuretic used to treat nephrogenic diabetes insipidus is :

A) Hydrochlorothiazide

B) Mannitol

C) Conivaptan

D) Eplerenone

E) Torsemide

Ans: A

Q: A hypertensive patient came for his regular checkup. He is on Spironolactone & his blood pressure is well controlled. The patient complains of impotence. What should be done to this patient?

A) Discontinue the drug since his blood pressure is controlled

B) Change drug to other analogs like Eplerenone

C) Combine this drug with another weak diuretic

D) Treat his impotence with another drug

Ans:B

Q: Which one decreases Ca^{2+} clearance:

A) Chlorothiazide

B) Spironolactone

C) Mannitol

D) Caffeine

Ans: A

Q: Drug with ability to precipitate hypercalcemia:

A) Chlorothiazide

B) Furosemide

C) Spiranolactone

D) Mannitol

E) Acetozolamide

Ans: A

Q: Indapamide is a thiazide diuretic

A) True

B) False

Ans:A

Q: Hypokalemia is a side effect to spironolactone

A) True

B) False

Ans: B

Q: Eplerenone acts on proximal convoluted tubule

A) True

B) False

Ans: B

Q: One of the following is a non-steroidal potassium sparing diuretic:

A) Spironolactone

B) Triamterene

C) Chlorothiazide

D) Ethacrynic acid

Spironolactone → (steroidal aldosterone antagonist). Ans: B

Q: Choose the correct match between the drug and its site of action?

A) Spironolactone — collecting ducts

B) Amiloride — aldosterone receptor

C) Triamterene — carbonic anhydrase

D) Acetazolamide — loop of Henle

E) Dutasteride — distal tubule

Ans: A

Q: Which drug can cause hypomagnesemia?

A) Spironolactone

B) Furosemide

C) Dutasteride

D) Tamoxifen

E) Danazol

Ans:B

Q: What common effect is shared by loop and thiazide diuretics?

A) Hyperkalemic metabolic acidosis

B) Hypercalcemic metabolic alkalosis

C) Hypokalemic metabolic alkalosis

D) Hyperkalemic respiratory alkalosis

E) Hypokalemic respiratory acidosis

Ans:C

Q: Which drug — effect pair is incorrect?

A) Triamterene — metabolic alkalosis

B) Furosemide — hypokalemia

C) Mannitol — osmotic diuresis

D) Spironolactone — potassium-sparing

E) Acetazolamide — bicarbonate loss

Ans:A

Q: Inappropriate ADH secretion is best managed by:

A) Increasing sodium intake

B) Water restriction

C) Administering diuretics

D) High-protein diet

Ans: B

Q: Antidiuretic hormone (ADH) antagonist:

A) Conivaptan

B) Furosemide

C) Eplerenone

Ans: A

Q: Regarding dilutional hyponatremia, which is FALSE?

A) Treated with hypertonic saline solution

B) Associated with excess production of ADH

C) Treated with Loop diuretics

D) Treated with Water supply

E) Caused by head trauma

Ans: D

Q: The following factors result in increased ADH release, except ONE:

A) Hyperosmolarity

B) Hypovolemia

C) Certain prostaglandins

D) Hypoosmolality

E) Angiotensin II

Ans: D

Q: All of the following are causes of diuretics resistance except:

A) Increased renal blood flow

B) Continued ingestion of salts

C) Secondary hyperaldosteronism

D) Lowered bioavailability of the drug

Ans: A

Q: Which one of the following statements regarding diuretics is NOT correct:

A) Nephrogenic diabetes insipidus may be treated by lithium or demeclocycline

B) Acetazolamide and amiloride both can cause Hyperchloremic Metabolic Acidosis

C) Loop diuretics and thiazide diuretics both can cause Hypokalemic Metabolic Alkalosis but only Loop diuretics may cause ototoxicity

D) Thiazides inhibit NaCl reabsorption in the DCT by blocking the Na+/Cl- transporter (NCC)

E) Loop diuretics are useful in treating toxic ingestions of bromide, fluoride, and iodide, which are reabsorbed in the TAL

Ans: A

Q: Which of the following doesn't cause hypokalemia?

A) Thiazides

B) Indapamide

C) Loop diuretics

D) Spironolactone

Ans:D

Q: Reduction of intracranial and intraocular pressure:

A) Thiazides

B) Mannitol

C) CA inhibitors

Ans: B & C

Q: Mannitol is commonly used in the management of hypertension

A) True

B) False

Ans: B

Q: Which drug is correctly matched with its use?

A) Mannitol — prevention of acute renal failure by removing pigment load

B) Amiloride — first-line treatment of breast cancer

C) Treatment of bacterial vaginosis — Dutasteride

D) Tamoxifen — treatment of UTIs

E) Metronidazole — treatment of BPH

Ans: A

Lecture 4:
Drugs used for UTIs

Q: Which of the following UTI drugs has multiple MOA and rarely develop resistance:

A) Quinolones

B) Nitrofurantoin

C) Fosfomycin

D) Cyclosporines

Ans: B

Lecture 5:
Drugs used in genital infections

Q: Which drug — mechanism pair is incorrect?

A. Metronidazole — inhibits protein production

B. Nitrofurantoin — causes DNA damage

C. Clindamycin — inhibits protein synthesis

D. Furosemide — inhibits Na^+-K^+-$2Cl^-$ transport

E. Spironolactone — blocks aldosterone effects

Ans: A

Q: Metronidazole and clindamycin can both be used to treat:

A. Malaria

B. Bacterial vaginosis

C. Diabetes mellitus

D. Hypertension

E. Asthma

Ans: B

Q: Which drug — side effect pair is incorrect?

A. Clindamycin — pulmonary fibrosis

B. Metronidazole — metallic taste

C. Nitrofurantoin — pulmonary toxicity

D. Furosemide — hypokalemia

E. Amiloride — hyperkalemia

Ans: A

Q: Which drug — effect pair is incorrect?

A. Nitrofurantoin — DNA damage

B. Metronidazole — inhibits protein production

C. Clindamycin — inhibits bacterial protein synthesis

D. Furosemide — causes hypomagnesemia

E. Micafungin — antifungal agent

Ans: B

Lecture 6+7:
Antifungal Agents

Q: Which of the following inhibits the synthesis of the cell wall of susceptible fungi:

A. Fluconazole

B. Amphotericin B

C. Caspofungin

D. Terbinafine

Ans: C

Q: A good inhibitor of CYP450 and cause suppression of adrenocortical hormones & it is contraindicated with amphotericin B, is a feature of which of the following drug:

A. Ketoconazole

B. Fluconazole

C. Flucytosine

D. Caspofungin

Ans: A

Q: Fluconazole is effective in candidiasis

A. True

B. False

Ans: A

Q: Nephrotoxicity is the major side effect of:

A. Amphotericin B

B. Ketoconazole

C. Fosfomycin

Ans: A

Q: The antifungal activity of amphotericin B depends principally on:

A. Its binding to a sterol moiety present in the membrane of sensitive bacteria

B. Its anti-cancer effects

C. Its binding to a sterol moiety present in the membrane of sensitive fungi

D. Its ability to dissolve a sterol moiety present in the membrane of sensitive fungi

E. Three of the listed answers are correct

Ans: c

Q: Fungal infections are usually more difficult to treat than bacterial infections because:

A. Fungal infections often occur in tissues highly penetrated by antimicrobial agents

B. Fungal organisms grow fast

C. Fungal organisms grow slowly

D. Fungal infections often occur in vascular tissues

E. Two of the listed answers are correct

Ans: c

Q: Which of the following is a wrong match adverse effect:

A. Ketoconazole – nephrotoxic

B. Flucytosine – bone marrow suppression

C. Voriconazole – visual disturbances

D. Itraconazole – suppression of adrenal steroid synthesis

Ans: A

Q: Drug of choice for hair and nail dermatophytes:

A. Terbinafine

B. Natamycin

C. Naftifine

Ans: A

Q: Caspofungin inhibits synthesis of the cell wall of susceptible fungi:

A. True

B. False

Ans: A

Q: Nephrotoxicity is a major side effect to amphotericin B

A. True

B. False

Ans: A

Q: Ketoconazole could be given orally and intravenously?

A. True

B. False

Ans: B

Q: As compared to imidazole antifungal agents, triazoles are more effective and less toxic?

A. True

B. False

Ans: A

Q: Most toxic antifungal drug:

ANS: Amphotericin B

Q: Wrong About Caspofungin:

ANS: Cyclosporin decreases its concentration

Q: Antifungal agents have also antibacterial activity:

A. True

B. False

Ans: B

Q: Flucytosine is a polyene antifungal agent

A. True

B. False

Ans: B

Q: Which drug — target infection pair is incorrect?

A. Micafungin — disseminated cryptococcus

B. Azoles — fungal infections

C. Clindamycin — bacterial vaginosis

D. Metronidazole — protozoal and anaerobic infections

E. Nitrofurantoin — urinary tract infection

Ans: A

Q: Which of the following is a side effect of azoles?

A. Exfoliative dermatitis

B. Hypoglycemia

C. Hypernatremia

D. Pulmonary fibrosis

E. Gingival hyperplasia

Ans: A

Q: Which drug — mechanism pair is incorrect?

A. Terbinafine — microtubule inhibition leading to mitosis arrest

B. Terbinafine — antifungal agent

C. Metronidazole — DNA damage

D. Nitrofurantoin — DNA damage

E. Clindamycin — protein synthesis inhibition

Ans: A

Lecture 8:
Gonadal hormones & inhibitors

Q: Which progestational agent has androgenic effects?

A. Tamoxifen

B. Medroxyprogesterone acetate

C. Anastrozole

D. Dutasteride

E. Spironolactone

Ans: B

Lecture 9:
Gonadotropins & analogues

Q: Which of the following conditions would typically not be treated with GnRH analogs?

A. Prostate cancer

B. Endometriosis

C. Uterine fibroids

D. Osteoporosis

Ans: D

Q: Regarding GnRH clinical uses, which is TRUE?

A. Pulsatile administration of GnRH is used for endometriosis

B. Pulsatile administration of GnRH is used for polycystic ovarian syndrome

C. Pulsatile administration of GnRH is used for diagnostic use

D. Pulsatile administration of GnRH is used for precocious puberty

E. Pulsatile administration of GnRH is used for IVF

Ans: C

Q: Which of the following statements is INCORRECT regarding gonadotropins?

A. FSH can be used for induction of ovulation.

B. FSH can be used in male infertility due to hypogonadism.

C. hCG has LH-like activity.

D. FSH is used for the treatment of cryptorchidism.

E. Menotropin contains both FSH and LH.

Menotropin = hMG Ans: D

Q: Which of the following is WRONG regarding continuous administration of GnRH or GnRH agonists?

A. It initially causes a transient flare effect.

B. It may increase LH and FSH during the first 7–10 days.

C. Continued use causes downregulation of GnRH receptors.

D. Continued use leads to decreased LH and FSH secretion.

E. Continued use causes persistent increase in LH secretion.

Ans: E

Lecture 10:
Oral contraceptives

Q: Which side effect does not require discontinuing oral contraceptive pills?

A. Mastalgia

B. Severe depression

C. Thrombosis

D. Visual loss

E. Chest pain

Ans: A

Q: Which statement is not true regarding progesterone-only contraceptives?

A. Spotting and bleeding episodes are common

B. Amenorrhea is common

C. DMPA IM is given every 3 months

D. Headache is often mild and transient, but migraine is made worse

E. They are never associated with menstrual changes

Ans: E

Q: The main goal of combining estrogen and progesterone in oral contraceptives is:

A. Synergistic effect

B. To reduce the severe side effects of estrogen by progesterone

C. To reduce the side effects of progesterone by estrogen

D. More confidential by the patient

Ans: A (& B) A in past files

Lecture 11:
Male hormones

Q: Which drug is used to treat benign prostatic hyperplasia?

A. Spironolactone

B. Dutasteride

C. Amiloride

D. Mannitol

E. Tamoxifen

Ans: B

Q: Hirsutism may be treated by:

A. Spironolactone

B. Eplerenone

C. Triamterene

D. Amiloride

E. Acetazolamide

Ans: A

Lecture 12:
Drugs used for urogenital neoplasms

Q: Which is not a common side effect of cytotoxic agent ?

A. Alopecia

B. Bone marrow suppression

C. Mucositis

D. Bluish discoloration of sclera and nails

E. Nausea

Ans: D

Q: Which of the following is not used for breast cancer therapy ?

A. Anastrozole

B. Tamoxifen

C. Danazole

D. Letrozole

E. Fulvestrant

Ans: C

Q: Hemorrhagic cystitis caused by cyclophosphamide can be prevented by:

A. Leucovorin

B. Adequate hydration

C. Diphenhydramine

D. Vitamin K

E. Atropine

Ans: B

Q: Trastuzumab is useful in breast cancer patients whose tumors overexpress:

A. VEGF-A

B. HER2/neu

C. DHT receptor

D. DHFR

E. Topoisomerase I

Ans: B

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