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UNIVERSITY OF RUHUNA - FACULTY OF MEDICINE
THIRD EXAMINATION FOR MEDICAL DEGREES PART 11- Dec 2008
PHARMACOLOGY PAPER I

2 HOURS
Answer all FOUR questions
Answer EACH PART in a SEPARATE BOOK

24th Dec, 2008

PART A

*Lamotrigine
Vigabatrin*

1.1 List the common drugs used in the treatment of seizures. (10 marks)

*Phenytoin
Ethosuximide -> absent seizure
Benzodiazepines
Phenytoin
Phenobarbitone
Na valproate
Carbamazepine*

1.1.1 Select the drugs from the list given in 1.1 to treat 18 year school girl with frequent focal seizures. (10 marks)

Carbamazepine, Lamotrigine, Phenytoin, Phenobarbitone

1.1.2 Mention common side effects of the drugs mentioned in 1.1.1 (15 marks)

1.1.3 What advice you would give to the patient and the parent regarding the treatment you selected in 1.1.1 (15 marks)

*Phenytoin - Aggravation of epilepsy
Carbamazepine - Myelosuppression, Metabolic anemia, Sedation
Lamotrigine - Rash, Nystagmus
Phenobarbitone - Hirsutism, Diminished tendon reflexes, Osteomalacia*

1.2 Explain briefly the following pharmacological terms

1.2.1 Bioequivalence. (10 marks)

1.2.2 Biological half life. (10 marks)

1.2.3 Adverse effect. (10 marks)

1.3 Write the systemic effects of lignocaine if accidentally injected into the circulation. (20 marks)

*Amide
Arrhythmia
Hypotension
Bradycardia*

PART B

2. A 67 year old male with hypertension and ischemic heart disease is admitted with acute onset of shortness of breath due to pulmonary oedema. Examination revealed that he has underlying congestive cardiac failure and his current blood pressure is 160/110 mmHg.

2.1 List four drugs that you would use in the initial treatment of this patient. (20 marks)

2.2 Describe briefly the mode of action of two drugs you mentioned in 2.1 (20 marks)

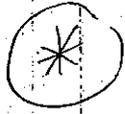
2.3 List two other drugs you will start once his initial medical problems are under control. (20 marks)

2.4 State pharmacological basis of using the drugs you mentioned in 2.3 (20 marks)

*Loop diuretic - Furosemide, Thiazide diuretic, Morphine, S-S, GPN, Hydralazine
ACE inhibitors - Lisinopril
Diuretic - Mannitol
Beta Blockers - Carvedilol, Metoprolol
Digoxin, Aldosterone antagonists
Beta Blockers: ↓ HR
anti arrhythmic drug -
↓ automatic discharge of PVN
against Short-circuit from ectopic discharges
by competitive inhibition*

PART C

Thyroid 3.



~~bb~~
combination,
(β cell
propyl)

- 3.1. A 30 year old female was diagnosed as having thyrotoxicosis during clinic visit. (10)
- 3.1.1. List four anti-thyroid drugs which can be given to this patient. (30)
- 3.1.2. Briefly describe the mode of action of two of them. (10)
- 3.1.3. List adverse effects of drugs you mentioned in 3.1.2
- 3.2 Describe the pharmacological basis of using thyroxine as a replacement therapy in adult hypothyroidism. (5)

PART D

4.

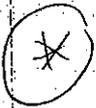
4.1 Briefly explain the mode of action of

Anti malarial

4.1.1. Quinine, in complicated *Plasmodium falciparum* malaria. (2)

4.1.2. Omeprazole in peptic ulcer disease. (2)

4.2 List four steroid preparations used in clinical practice. (2)



4.2.1 Describe adverse effects and the precautions you would take when you prescribe drugs mentioned in 4.2.

4.2.2 Indicate two clinical uses for each drug you mentioned in 4.2