

## Pharmacology

Lecture 1 antidepressants associated with:

1. changes in personality
2. SSRI drug is Zoloft (sertraline)
3. tricyclic antidepressants are non selective
4. bupropion used as augmenting drug

## Lecture 2

Schizophrenia associated with:

1. increased prolactin
2. no remission, no cure
3. epigenetic + environmental disorder
4. risperidone causes gynecomastia
5. clozapine olanzapine causes diabetes
6. aripiprazole is partial agonist, used for augmenting and has no side effects

## Lecture 3

Bipolar disease is associated with:

1. treated by lithium
2. lithium causes decreasing in sodium, and causes dehydration
3. lithium also causes tremors that is treated by propranolol
4. lithium also causes hypothyroidism that is treated by thyroxin
5. valproic acid also is a treatment for bipolar used for rapid cycling and acute mania

## Lecture 4

General anesthesia is associated with:

1. halothane which is good for children but for adults it causes hepatitis and bradycardia
2. isoflurane is better with no bradycardia
3. NO gas causes hypoxia and associated with second gas effect
4. propofol is good for patients with high intracranial pressure
5. ketamine which also used as antidepressant and good for patients with hypovolemic and cardiogenic shock

## Lecture 5

Parkinson's and Alzheimer's

Parkinson's is associated with:

1. decreased dopamine
2. L-dopa and carbidopa as a treatment
3. inhibition of MAO-B and COMT as a treatment
4. no cure

Alzheimer's associated with:

1. decreased ACh

2.anti amyloid secretase, NMDA antagonists cholinesterase as a treatment

#### Lecture 6

Anti seizures associated with:

- 1.decreased sodium, calcium, glutamate, SV2A, AMPA, NMDA, GAT and GABA-A reuptake as a treatment
- 2.increased chloride

#### Lecture 7

Local anesthesia associated with:

- 1.respiratory distress and vasodilation
- 2.duration of it increases with increasing protein binding
- 3.not working as the pH decreased so we do vasoconstriction
- 4.prilocaine is a treatment but causes methemoglobinemia
- 5.bupivacaine for spinal anesthesia

#### Lecture 8

Alcohol associated with:

- 1.methanol intoxication causes snow flakes

#### Lecture 9

Skeletal muscle relaxants associated with:

- 1.centally treatment like: buclofen(GABA-B agonist), tizanidine(alpha-2 agonist), diazepam(benzodiazepines, GABA-A agonist) and cyclobenzaprine(TCA-like, acute muscle spasms)
- 2.peripherally treatment like: dantrolene(inhibits ryanodine receptors) and botulinum toxin(prevents acetylcholine)
- 3.neurotransmitters blockers divided into:non-depolarizing which don't effect ion channels and prevent acetylcholine release like curare(curium) and curonium(aminosteroids), and depolarizing where succinylcholine binds entering two phases:phase 1 fasciculations and phase 2 muscle paralysis

#### Lecture 10

CNS stimulants associated with:

- 1.amphetamines is a treatment for ADHD, narcolepsy sleep disorders, cataplexy where someone can fall down only from laughing with no sensation of pain and with low doses to improve elderly cognitive functions.

