

***Title of Lecture: ANS***

***Date of Lecture: 16/10/2014***

***Sheet no: 12***

***Refer to slide no. : 36***

***Written by: Qais S. Mismar***

In this sheet I will put any extra notes that are not mentioned in the slides, so please refer to the slides while studying this sheet.

* Slide 36
* Selective **β2** stimulants
* Excellent drugs to patients with bronchial asthma (bronchodilators)
* Mainly given by inhalation, could be given orally and subcutaneous (SC)
* Slide 37
* The problem with these drugs is that the selectivity is not 100% and this is reflected on the side effects of these drugs, so one should be careful in using these drugs
* Slide 38
* Phenylephrine is orally effective
* Along with antihistamines (act as vasoconstrictors) and anti cough agents, phenylephrine relieve congestion in the nose
* L.A= **local anesthetic**
* Slide 39
* DOA: duration of action
* MAO: monoamine oxidase
* COMT: Catechol O-methyltransferase
* Slide 40
* Norepinephrine has no stimulant effect on the CNS as significant as ephedrine
* Slide 41
* Same as the slides
* Slide 42
* **IMPORTANT**: leads to addiction
* **hyperkinetic syndrome:** psychiatric **syndrome** emerging in early childhood that features an enduring pattern of severe, developmentally inappropriate inattention, hyperactivity and impulsivity across different settings (e.g., home and school) that significantly impair academic, social and work performance.
* There are many explanations on how amphetamine works, but it is believed that the most probable explanation is that it increases concentration in the brain, so the active behavior will decrease
* Slide 43
* Reminder 🡪 **antagonist**: a drug which reverses the action of an agonist by the receptor mediated mechanism
* Blockers are antagonists
* **Antidote** is a drug which reverses the action of a second drug by non-receptor mediated mechanisms
* Slide 44
* **β-adrenergic blockers** are widely used in the treatment of hypertension
* MI: myocardial infarction
* CHF: congestive heart failure
* Rx: medical symbol for prescription or treatment.
* HTN: hypertension
* BP: blood pressure
* Slide 45
* The controversy on which is the best Rx for hypertension is acceptable if the patient has only hypertension with no other disease or condition. In this case, giving him β-adrenergic blockers or diuretics would have the same results.
* **Compelling indications**: diseases or conditions that the patient has other than hypertension (example: diabetes)
* **β-adrenergic blockers** are a **bad** choice in treating hypertension in **diabetic patients**, because they may dull the warning signs (manifestations) of a low blood sugar level (hypoglycaemia - often called a hypo). For example, you may not develop palpitations (the sensation of rapid, irregular, or forceful heartbeats) or tremor, which tend to occur as the blood sugar is going too low.
* β-blockers are considered 1st line therapy in patients with hypertension and have **high coronary risk or post myocardial infarction,** because they inhibit the effects of catecholamines at β-adrenergic receptors, decreasing the heart rate, contractility, cardiac output (CO) and blood pressure
* Slide 46
* PG: prostaglandin
* Slide 47: memorize them
* Slide 48: memorize them
* We don’t give beta-blockers to people with heart failure, and we don’t encourage giving them to people with bronchial asthma
* If a patient has high blood pressure and bronchial asthma and you had to give him a beta-blocker then you give him a cardioselective beta-blocker.

Good luck,

Qais S. Mismar