Chapter 13. Drugs Used in Erectile Dysfunction

Syllabus:

Drugs for erectile dysfunction: Sildenafil, Tadalafil

13.1. ERECTILE DYSFUNCTION

Erectile dysfunction (ED) is a common sexual difficulty found in men; it affects millions of people worldwide. ED is characterized by a lack of penile erection, which causes the inability to make satisfactory sexual relationship with the partner. ED is occurring due to the neurogenic, hormonal and/or vascular defect.

13.2. DRUGS USED IN ERECTILE DYSFUNCTION

PDE-5 Inhibitors: Sildenafil, Tadalafil, Acetildenafil, Vardenafil

**Nifric Oxide

Guanylyl Cyclase (GC)

PDE-5 Inactivation

Sildenafil

Relax Vessels

MOA of Sildenafil

MLCP

MOA of

Nitrates/NO

1) Sildenafil

5-[2-ethoxy-5-(4-methylpiperazin-1-yl)sulfonyl phenyl]-1-methyl-3-propyl-6*H*-pyrazolo[4,3-d] pyrimidin-7-one

Uses:

- ✓ Used as a vasodilator to management of ED
- ✓ Sildenafil also used in pulmonary hypertension

2) Tadalafil

 $\hbox{$2$-(1,3-benzodioxol-5-yl)-6-methyl-3,6,17-triazatetracyclo-heptadeca-1 (10),11,13,15-tetraene-4,7-dione}$

Uses: Used in ED, prostate enlargement, pulmonary hypertension