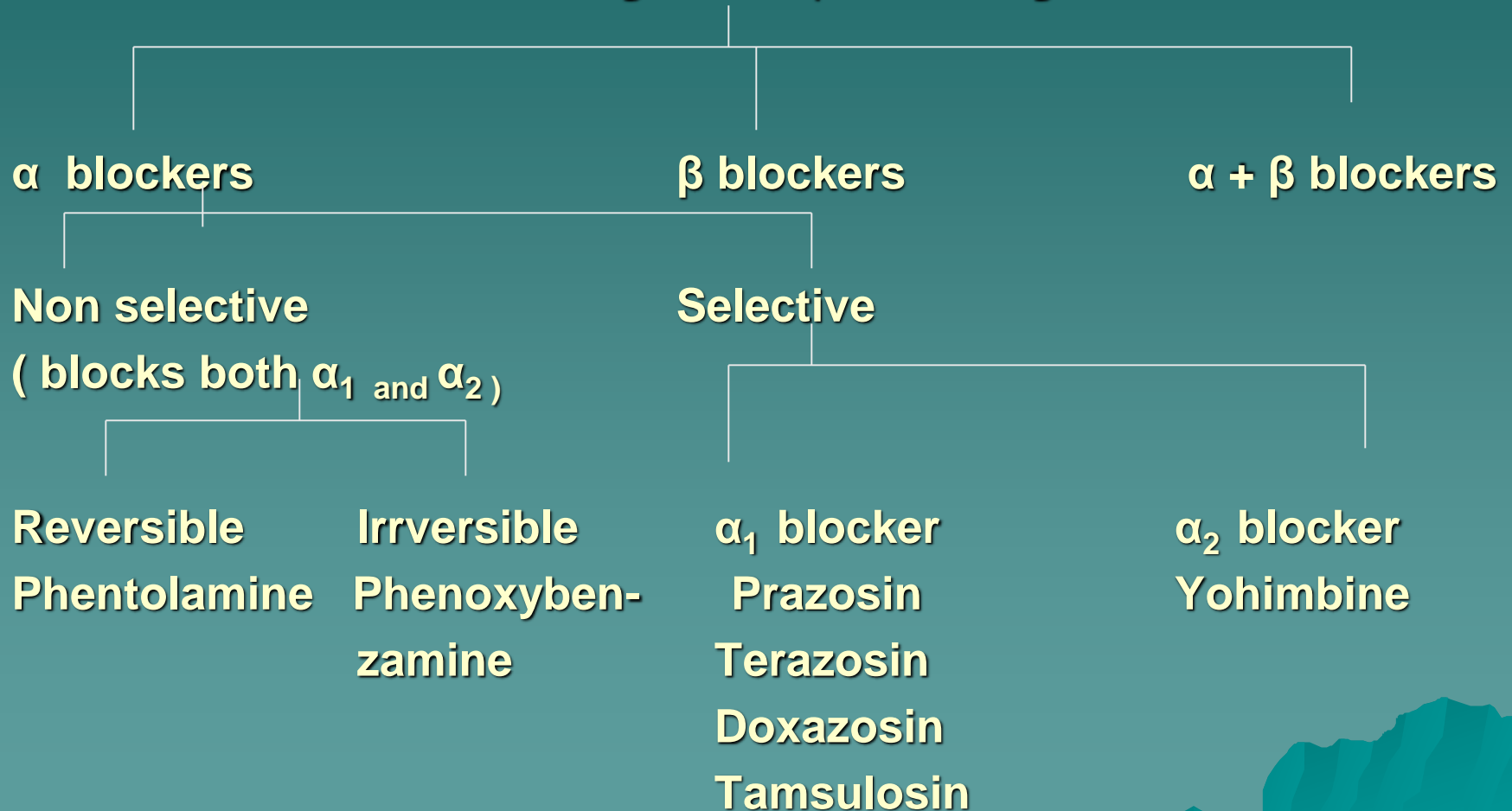


*ADRENERGIC
RECEPTOR
ANTAGONIST*

Adrenergic Receptor Antagonist

◆ Adrenergic Receptor Antagonist



Pharmacological actions

- **CVS.**
 - a) – **Blockade of α_1 receptors on peripheral vasculature**
 - **Vasodilatation of arteries and veins**
 - **Decrease in P.R and venous return (preload) to the heart**
 - **Decrease in P.R \longrightarrow B.P**
 - **Decrease Afterload + Preload on heart**

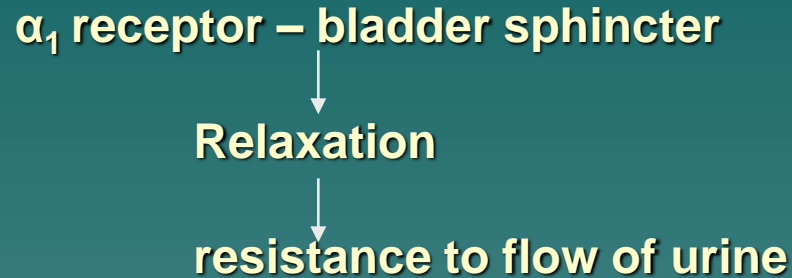
b) Tachycardia

- **Blockade of presynaptic α_2 A[®]**
- **Baroreceptor reflex –**
 - ↓
 - **↑ Sympthetic discharge**
 - ↓
 - **Activation of β_1 receptors on heart**

c) Postural Hypotension

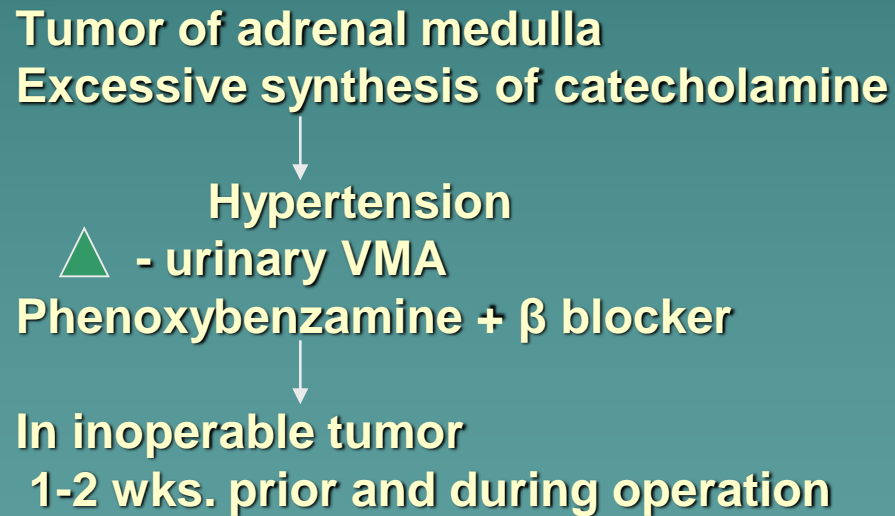
d) Dale's vasomotor reversal

- ◆ **EYE**
- Miosis – blocks α_1 receptor
- Intestinal motility- ∇ ed
- Urinary outflow



Uses of α blockers

- **Pheochromocytoma**



◆ Hypertension – Selective α_1 blocker.

Prazosin

Terazosin – 12 hrs.

Doxazosin -20 hrs.

↓ LDL con. ↑ HDL

- Congestive cardiac failure
selective α_1 blocker
- Benign hypertrophy of prostate
urinary obstruction

size of prostate

↑ tone of smooth muscle of
bladder neck, triagone

Prostatic urethra

Blockade of α_1 ® - relaxation of bladder Sphincter- ↓ ing resistance
to urine outflow – Complete emptying of bladder

Tamsulosin-Selective α_1 A blockers



No CVS side effects

Adverse effects

- ◆ Postural hypotension – 1st dose effect
- ◆ Reflex tachycardia – less with selective α_1 blockers
- ◆ Nasal stuffiness
- ◆ Nat + H₂O retention