

GANGLION BLOCKERS

Some of the drugs that were used to lower blood pressure in the early days of antihypertensive therapy, including ganglion blockers, adrenergic neuron blockers and reserpine.

In practice, the main effect is a marked fall in arterial blood pressure resulting mainly from block of sympathetic ganglia, which causes arteriolar vasodilatation, and the block of cardiovascular reflexes. Venoconstriction, which occurs normally when a subject stands up and prevents a fall in central venous pressure and cardiac output, is reduced. Postural hypotension can cause fainting. The vasodilatation of skeletal muscle that occurs during exercise is normally accompanied by vasoconstriction elsewhere (e.g. splanchnic area) produced by sympathetic activity.

These drugs inhibit the N_N type of nicotinic receptors that are present on the autonomic ganglia and the decrease in blood pressure is due to the decrease in neurotransmission through sympathetic ganglia whereas decreased transmission through parasympathetic ganglia is responsible for the adverse effects like urinary retention and dry mouth. Trimethaphan and Hexamethonium are now used rarely because of availability of drugs with lesser adverse effects. Mecamylamine is a ganglion blocker used for smoking cessation.

Trimethaphan, however is used along with nitroprusside as a slow i.v. infusion for hypertensive emergencies in aortic dissection.

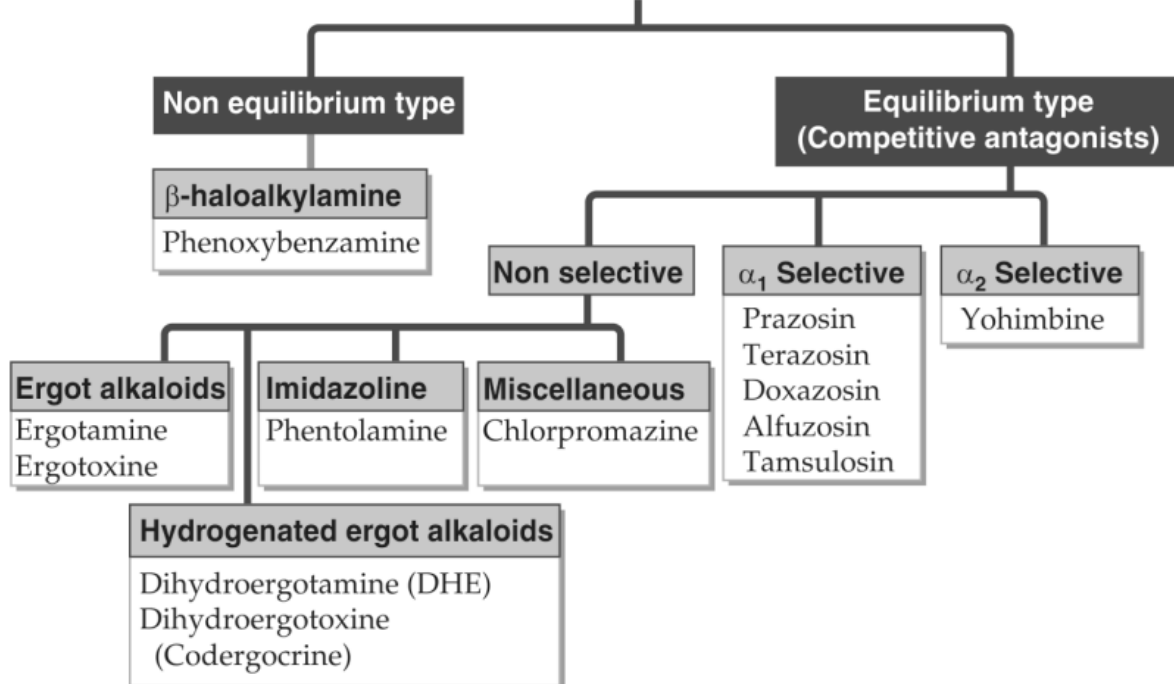
ADRENERGIC NEURON BLOCKERS

Drugs of this group deplete the sympathetic neurotransmitter and thus decrease the sympathetic activity. Reserpine, bretylium and Guanethidine are now rarely used.

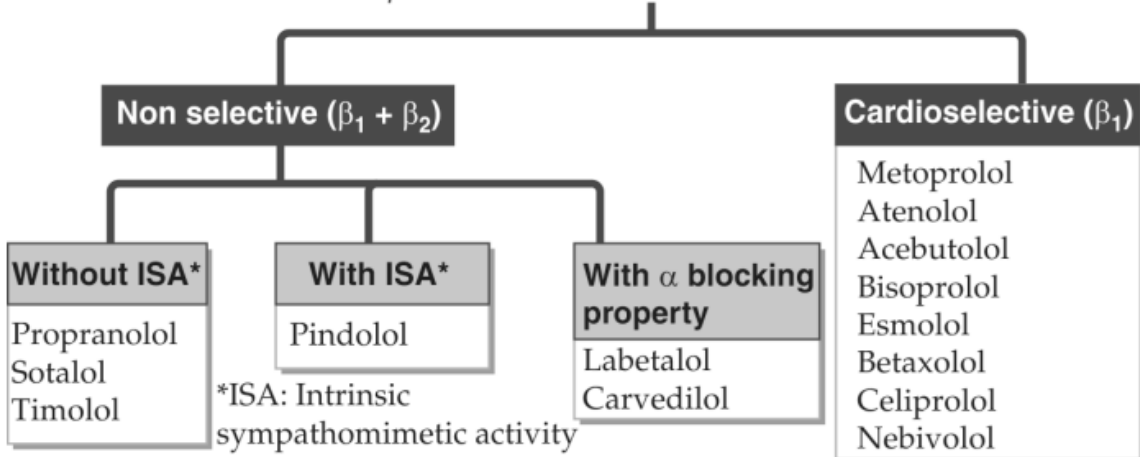
Reserpine inhibits the vesicular uptake of neurotransmitters causing depletion of adrenaline, dopamine and serotonin in the synaptic vesicles. Due to deficiency of serotonin in the brain, severe depression can result with use of reserpine sometimes leading to suicidal tendencies. Guanethidine and bretylium is taken up inside the synaptic vesicles and displaces the stored noradrenaline (which is metabolized), resulting in the decreased neurotransmission. Both of these drugs can be given orally. These drugs can cause postural hypotension even if used for prolonged periods.

ADRENERGIC RECEPTOR ANTAGONISTS

α ADRENERGIC BLOCKING DRUGS



β ADRENERGIC BLOCKING DRUGS



GENERATIONWISE CLASSIFICATION

β ADRENERGIC BLOCKING DRUGS

