

DT 4th

Course Title: General pharmacology II

Student Name: Muhammad Tahir

Student ID: 15083

Discuss various drugs classes used for hypertension and Cardiac heart failure

DRUGS USED FOR HYPERTENTION

1] DIURETIC ,, These drugs lower blood pressure by reduction of blood volume and probaly also by direct vascular effect that is not fully understood.The diuretics most important for treating hypertension are Tiazides and Loop diuretics.Tiazides may be adquate in mild and moderate hypertension, but Loop agents are used in severe hypertension.

2] SYMPATHOPLEGICS ,, These drugs are used to interfere with sympathetic control of cardiovascular function.The result is a reduction of one or more of following venous tone, heart rate, contractile force of heart, cardiac output.Clonidine ,Methyldopa causes decrease sympathetic out flow by activation of Alpa two receptor in CNS.

3] VASODILATORS , Drugs that dilate blood vessels by acting directly on smooth muscle cells through nonautonomic mechanisms are useful in treating some hypertension patients.These drugs blocks calcium channel, release of nitric oxide , opening of potassium channel and activation of dopamine D one receptor.

4] ANGIOTENSIN ANTAGONISTS AND RENIN INHIBITORS ,, The two primary group of angiotensin antagonists are the angiotensin converting enzyme inhibitors and angiotensin II receptor blockers.Captopril which inhibits the enzyme known as angiotensin converting enzyme,kininase II and peptidyl dipeptidase,cause reduction in blood vessels of angiotensin II and aldosterone and increase endogenous vasodilator of kinin family.Angiotensin converting enzyme inhibitors are used for heart failure and diabetes as well as hypertension.The specific agents are Los artan,Vals artan,Irbeartan.

DRUGS USED IN HEART FAILURE

1] CONGESTIVE HEART FAILURE ,, Digitalis is the traditional inotropic agent used in treatment of chronic heart failure.

2] ATRIAL FIBRILLATION,, In artial flutter and fibrillation,it is desirable to reduce the conduction velocity or decrease the refractory periode of AV node.

3] DOBUTAMINE AND DOPAMINE ,, are used in acute heart failure in which systolic function is normally depressed.

4] CARVEDILOL, LABETALOL,METOPROLOL are useful to slow progression of chronic heart failure .

5] VASODILATORS „ Nitroprusside or nitroglycerin are used for severe failure with congestion.