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Q No(1)

Ans

(A): Congestive heart faliure:→

Congestive heart faliure is the condition in which the heart is unable to pump sufficent blood to meet the tissue demand

(A) Therapatic Strategies for heart ~~faliure~~: → pumping ability.

(1) Cardiac glycosides

→ Spacific agent
→ Degoxin
→ Digitoxin.

Machanism of Action:→

Increase mycordial contration by blocking Sodium

(2)

potassium ATPase channels

(2) Phosodiesterase Inhibitors.

→ Spacific agent.
→ Inmamirone //
→ Imadrone. //

Machanism of Action:→

Decrease the cmp break down that increase in intra cellular Calcium Consentation that increase myocrdial contractility.

(3) Dopamine & Dubatamine.

Machanism of action.

Increase possitive Ionotropic effect,

→ Stimulate beta 1 Receptor & increase heart Rate.

3

Drug that Decrease Cardiac work load.

(a) ACE Inhibitors:

Specific agent Captopril

→ Decrese blood pressure.
→ Decrese work load on heart.

(b) ARBs.

Specific Agent.

Valsartan
Losartan

→ Decrse blood pressure.
→ Decrse work load on the heart.

(c) beta blocker.

specific agent.

→ Labetolol
→ Carvidolol
→ Atenolol

(4)

Machanism of Action:→

→ Decrease heart rate
→ Decrease Cardiac out put
→ Decrease work load.

(4) Diuretics:→

Spacific agent:→

→ furasimide.
→ thiazide.
→ Spirimolactonane.

Machanism of Action:→

→ Inhabiting Sodium water absorbtion in the kidney.

→ Decrease pre load on the heart.

(5)

Ans:(1)

Part (B)

* Positive Ionotropic agents for CHF *.

postive Iontropic agent are Include

(1) Cardiac glycoside

(a) Digicxin
(b) Digitoxin.

Machanism of Actin:-

block Sodium potiasum ATPase Chanal increse Intra cellular Calcium in mycordium Increse Contictile force of the heart

(2) Dopameem, Deubetamin.

(MoA) Stimulate beta 1 reepter in the heart that will increse the heart rate.

(b)

other drugs include are epinephrine norepinephrine

Q No (2)

Ans: ⇒

(A) Essential hypertension ⇒

the hypertension having no known cause as known as primary or essential hypertension. it is also known as idiopthic hypertension 95% of the hypertension is essential hypertension.

Secondry hypertension ⇒

the hypertension which is secondry to other diseases like kidney failure harmonal problem. arteriosclerosis or known as secondry hypertension. 5% of hypertension is secondry hypertension.

Q No (2)

(B) Drug Act on renin angiotensin System.

angiotensin converting enzyme Inhibitor.

ACE Inhibitors

↓

Renin

↓

angiotensin I

ACE Inhibitor block

ACE block the conversion of angiotensin I to angiotensin II that will lead to decrease, bp.

Angiotensin II

↓

Action kidney

Na^+ water Retention.

angiotensin receptor blockers.

ARBs

↓

Renin

↓

angiotensin I

↓

angiotensin II

ARBs block the phsiriphral angiotensin II receptor in the blood vessle & kidney that will lead to decrease blood pressure..

(8)(9)

Q No (3)

Ans:→

Part (A)

Angina Pectoris:→

Angina pectoris is a conditon in which the severe chest pain ~~is~~ is rediating to word the neck back & arm.

Cause:→

Imbalance between oxygen demand & Supply.

Types of angina:→

(1) Stable angina:→

→ it is the most Common Type of angina.

→ it is caused by Coronary ~~arter~~ artherosclerosis.

→ usually lasts for 15 to 20 minutes & increase with exercise & stress

→ Relieved by nitroglycerin.

② Unstable angina:→

→ lies between stable angina & MI.

pathology:→

→ caused by platlet thrombusis of ruptured atherosclerotic plaque.

→ Chest pain longer than 20 minute associated with shortness of breath & sweating.

→ Not relived by nitroglycerin & rest.

(11)

(3) Prinzmetal angina:-

→ it is also known as vasospastic angina.

→ it is caused by coronary artery vasospasam.

→ Chest pain not related to exercise & stress

Treatment:-

→ nitroglycirin & Calcium Chanal blockers.

Ans 3

Part B

Treatment process for angina Pectoris include.

(1) Nitrates:→

Specific agent:→

→ Nitroglycirin
→ Isosarbid mamonitrate
→ Isosirbite dinitrate

Machanism of Action:→

(a) Didlation of the blood vessles (venus)
→ decrease venus return
→ decrease pre. loud on heart.

(b) didleton of artries:→

→ decrease after loud on the heart.

(2) beta blockers:→

Specific agent:→

→ atenolol
→ Metaprolol
→ bisprolol.

*Mechanism of Action:→

(a) Decrease heart rate.
→ Decrease oxygen Demand.

(b) Decrease myocardial Contictility

(c) Reduce the work load.

(3) Nitrites & beta blocker Combination:→

(4) Calcium Chanal blockers:

Specific agent:→
Amilodopine
Diltiazim
Nefebepine.

(14) (b)

Mechanism of Action :→

block the Calcum chamel in blood vesels and heart

→ Didlate the blood veseles decreese blood pressure.

→ Decreese heart Contractlity

→ Decreese oxygen Demond.

End paper