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~~Paper~~

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Faw

(11)

Q = 1 :.

Ans:. Part A:,

Congestive Heart Foilure.

- It is a condition in which Heart is Unable to pump sufficient amount of blood to meet The needs of peripheral tissue.

"OR"

- It is a chronic condition in which The blood is congested in The "I" part of Heart is and does not allow to transfer to The peripheral tissue.
- The cardinal symptoms is dyspnea Fatigue and Fluide retention.

Therapeutic agents for improving Cs Heart Pump ability.

- chronic Heart Failure is typically manged by Fluid limitation (Less than 1-5 to 2 L daily).
- Low dietary intake of sodium. (Less than 2000 mg/dl)

(1):- Increased cardiac work ~~blood~~ load.

- It refer to positive Ionotrops affects which increase the muscle contraction.

=> Example, cardiac glycosicle

(2):- Decrease cardiac work load:-

- by decreasing the Heart rate and increasing Peripheral resistance we decrease the cardiac work load.

=> Example.
(i) ACE inhibitor
(ii) Diuretic
(iii) B-Blockers.

Cs=1 Past-B

Past b-:

Ly

Ionotropic Drugs

- Positive Inotropic agents enhance cardiac Contractility and This increase cardiac output, Although These drugs act by different mechanism.
- The inotropic action is a result of increase cytoplasm
- All positive ionotrop is Heat failure that increased intracellular calcium Concentration have been associated with reduced es survival. especially in patient with Heart Failure due to Coronary artery disease.

Positive Inotrop:

- These are those agents which
- increase cardiac activity.
- Drugs — ① Milrinme.
  ② Inamrinme.

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(1). How They increased cardiac 2u08K load.

- These drugs come cAMP mediated increases intracellular calcium which is contractile elements That increase The contraction of heart muscle and hence inf increase cardiac 2u08K load.

(2). Dopimergic drugs.

Drugs ① Dopamine.

② Dobutamine.

How it increase Cardiac Work load.

- These drug stimulate B_1 receptor in myocardium that come secretion of epenipherine and and nor-epine Pherin nor-epinipherin That has positive

Inotropic affect and hence increase cardiac work load.

(3). Cardiac glycoside:

Drugs
- Digoxin
- Digitoxin

Mechanism of Action:

- These drugs inhibite Na^+/K^+ Per sodium. They increase Na^+ alters the driving force for Na/Ca exchange by ex exchanges. The increase Ca in in cytoplasmic reticulum with increase contractile force that inturn increase cardiac work load.

Qs = (2) :- Part A

Ans:

Part - A

Secondary Hypertension :-

→ It accounts for only 5-7 % of the patient elevated BP accounts due to specific underlying causes, eg-

- Renal paranchymal disease.
- Primary Aldosteronism
- cushing syndrom
- pheochromocytoma
- contraction of Aorta.
- Endocrine disorder.

Assential Hypertension:-

- The Type of Hypertension in which elavated BP results. From The complex interaction between multiple genetic environmental Factor Its exact couses are unknown
- This Hypertension constribution about 90 – 95 % of The patient with Hypertension.

Q3 = (2). Part-B

Part-B :

(1). ACE Inhibitors

- Benzopril
- Enalapril
- captopril
- Fosinopril
- Moexipril
- Quinapril
- Lisinopril.

(2). ARB's.

- Azilsartin
- candesartan
- Losarton
- Telmisartin
- valsartan
- Eprosartan.

(3). Renin Inhibitor.

- Aliskiren
- remikiren

Q3 = (3)

Ans:- Part - A :-

Angina Pectoris :-

- It is characteristic of sudden, severe, crushing, chest pain, that may radiate to Neck, Jaw, back and ~~arms~~ arms.

- Types of Angina Pectoris :-

(A) stable angina :-

- It is characterized by short lasting burning heavy or squeezing Feeling in the chest unusually last 1-15 min,

and is precipitated by excercise, stress extrem cold or heat, heaving meal alcohal or smoking

(B) Unstable angina :-

- It is characterized with chest pain with increased Frequency, duration, and intensity, and can be precipatated and progressively less effort Unstable Unstable angina is a Form of acute Coronary syndrom and requires Hospital admission and more aggresive therapy to prevent progression to MI and death.

(C) Rest angina:

- It is uncommon pattern of episodic angina that occur at rest and is due to coronary artery spasm symptoms are connect due to by decreased blood Flow. heart muscle From The spasm of coronary artery.

→ It respons promptly to coronary vasodialator such as Nitro-glycerin. Ca^{+1} channel blockers.

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Q3 = (3) Part B.

Part - B :- Treatment process For Angina pectoris :-

→

Four Types of drug used to esther alone or in combination commonly used For The treatment of angina pectoris.

(i) :- B - Blocker

Drugs

- Atenolol
- Propenolol
- sotalol

How B-Blocker act,

(1) Decrease myocardial O_2 demand,

(2) increase O_2 delivary to heart.

(3) Reduced The work of heart by decreasing cardinal output.

(2) Ca^+ channel blocker:-

Drugs:-

- Amlodipine.
- diltizam.
- nefidipine.

Mechanisms of Action:-

Ca^+ influx is increased in e. ischemic affact (angina pectoris) because of membrane depolarization

- That Produced Hypoxia

The Ca^+ channel blocker protect The tissue by inhibiting Ca^+ entrance into Cardiac and smooth muscles of Coronary beds, That Couse Vasodilation and increase Negative inotropic affect.

(3) Organic Nitrate:-

Drugs:-

- Nitroglycerin
- Isosorbide mono cytrate.

How it action,

(i):- It dilates the coronary artery which increase blood supply to heart muscles.

- Relieving vaso spasm.

Redistribution blood Flow.

↓

Pre load.

↓

After load.

To decrease o2 consumption by decreasing cardiac work load.

"THE END"

"THANKS"