

**POST GRADUATE DIPLOMA IN CLINICAL
CARDIOLOGY (PGDCC)**

Term-End Examination

December, 2012

MCC-003 : COMMON CARDIOVASCULAR DISEASES - I

Time : 2 hours

Maximum Marks : 60

Note :

- (i) *There will be multiple choice type of questions in this examination which are to be answered in OMR Answer Sheet.*
- (ii) *All questions are compulsory.*
- (iii) *Each question will have four options and only one of them is correct. Answers have to be marked in figures in the appropriate rectangular boxes corresponding to what is the correct answer and then blacken the circle for the same number in that column by using HB or lead pencil and not by ball pen in OMR Answer Sheet.*
- (iv) *If any candidate marks more than one option it will be taken as the wrong answer and no marks will be awarded for this.*
- (v) *There will be 90 questions in this paper and each question carries equal marks.*
- (vi) *There will be no negative marking for wrong answers.*
- (vii) *No candidate shall leave the examination hall at least for one hour after the commencement of the examination.*

1. When using mercury sphygmomanometer to record blood pressure, adhering to following points is correct except :
 - (1) Lower edge of the cuff should be 2.5 cms above the antecubital fossa.
 - (2) Sthethoscope diaphragm should be below the cuff edge.
 - (3) Width of the cuff should be 40 percent of the circumference of the arm.
 - (4) Length of the rubber bag must be enough to cover more than 40 percent of the circumference of the limb.

2. Following blood pressure recording is suggestive of isolated systolic hypertension :
 - (1) Systolic BP > 140 or more and a diastolic BP < 90 mm Hg
 - (2) Systolic BP > 150 or more and a diastolic BP more than 90mm Hg and less than 100 mm Hg
 - (3) Systolic BP > 130 or more and a diastolic BP < 90 mm Hg
 - (4) Systolic BP > 130 or more and a diastolic BP < 80 mm Hg

3. Nocturnal Hypertension is common in patients with following type of hypertension :
 - (1) White Coat Hypertension
 - (2) Masked Hypertension
 - (3) Hypertension with chronic kidney disease
 - (4) Isolated Systolic Hypertension

4. Commonest cause of secondary hypertension is because of :
 - (1) Renal Parenchymal Disease
 - (2) Cushing's Syndrome
 - (3) Pheochromocytoma
 - (4) Coarctation of Aorta

5. As recommended by JNC VII classification, stage I hypertension is :
 - (1) Systolic BP 140 – 159, Diastolic BP 90 – 99
 - (2) Systolic BP 130 – 149, Diastolic BP 90 – 99
 - (3) Systolic BP 140 – 159, Diastolic BP 80 – 89
 - (4) Systolic BP 140 – 150, Diastolic BP 80 – 89

6. Persistent Hypokalemia is a feature of :
 - (1) Primary Aldosteronism
 - (2) Renovascular Hypertension
 - (3) Cushing's Syndrome
 - (4) Phaeochromocytoma

7. Nonsteroidal inflammatory drugs (NSAIDs) may suddenly worsen renal function in patient with preexisting renal disease because of the following reason.
- (1) They block the synthesis of prostaglandins
 - (2) They block the synthesis of Angiotensin II
 - (3) They increase synthesis of Angiotensin II
 - (4) They decrease the breakdown of cyclic AMP
8. Following features help in distinguishing gestational hypertension and preeclampsia from chronic primary hypertension. Ladies with gestational hypertension more commonly have following features except :
- (1) They are generally younger 20 years of age
 - (2) They are primigravida
 - (3) Onset is before 20 weeks of pregnancy
 - (4) Proteinuria is present
9. Following are features of Cushing 's Syndrome except :
- (1) Round face
 - (2) Truncal obesity
 - (3) Buffalo Hump
 - (4) Rough skin
10. Following are some of the features of systemic hypertension except :
- (1) Second Heart sound is wide split with loud A₂
 - (2) There may be a heaving apical impulse
 - (3) ECG may reveal LVH
 - (4) Echo is more sensitive than ECG to detect LVH
11. Following statements about systemic hypertension are true except :
- (1) The main effect of hypertension on the heart is the development of hypertrophy and increased stiffness of LV.
 - (2) The risk of coronary heart diseases increases almost 4 fold for a person with a diastolic pressure of 91 to one with 105 mm Hg.
 - (3) Hypertension is associated with accelerated age related cognitive decline.
 - (4) The risk of stroke increases almost 4 fold for a person with a diastolic pressure of 91 to one with 105mm Hg.
12. Following statements about renovascular hypertension are true except :
- (1) In adults, two major types of renovascular disease tend to appear at different times and affect the genders differently.
 - (2) Atherosclerotic disease affects mainly the distal two thirds of the main renal artery.
 - (3) As the population grows older, 90 percent of cases are caused by atherosclerotic disease.
 - (4) Presence of Renal Artery Stenosis does not prove that the renovascular lesion is causing hypertension.

13. Following statements about management of hypertension are true except :
- (1) Presence of comorbid conditions should determine the choice of specific classes of hypotensive drugs.
 - (2) In patients with stable angina, the drug of choice is usually a betablocker
 - (3) In the setting of heart failure, Angiotensin converting enzyme inhibitors and Angiotensin Receptor Blockers should be avoided since they decrease LV filling pressure.
 - (4) Preferred drugs for elderly are low-dose diuretics and dihydropyridine calcium antagonists.
14. A patient of chronic obstructive pulmonary disease has reported to you for treatment of hypertension. Following group of drugs should be avoided :
- (1) Betablockers
 - (2) Calcium channel blockers
 - (3) Diuretics
 - (4) Ace-inhibitors
15. A 35 yrs old pregnant lady has reported to you for management of hypertension. Out of the following drugs; preferred drug for control of hypertension is :
- (1) Ramipril
 - (2) Losartan
 - (3) Methyldopa
 - (4) Captopril
16. As per JWC-7 recommendations for the pharmacological treatment of stage I hypertension, drug of 1st choice is :
- (1) Thiazide diuretic
 - (2) α Blocker
 - (3) β Blocker
 - (4) ACE inhibitor
17. Following are some of the side effects of thiazide diuretics except :
- (1) Hypokalemia
 - (2) Hypouricemia
 - (3) Hypercalcemia
 - (4) Hyponatremia
18. Following drugs are grouped under central alpha 2 against except :
- (1) Clonidine
 - (2) Prazosin
 - (3) Methyldopa
 - (4) Reserpine
19. In the treatment of hypertension in the setting of diabetes, goal is to reduce blood pressure to :
- (1) < 140/90
 - (2) < 150/100
 - (3) < 130/80
 - (4) < 120/80
20. In the management of hypertension, Norman Kaplan gave following suggestions about Dietary sodium except :
- (1) Do not add salt at the cooking or at the table
 - (2) If salt is desired ; avoid iodised salt
 - (3) Avoid fast foods
 - (4) Be careful about sodium content of some medications

21. Cardiac Arrhythmia may precipitate or worsen heart failure through several mechanisms except :
- (1) Tachyarrhythmias increase ventricular filling and decrease myocardial oxygen demand.
 - (2) Marked bradycardia in patients with underlying disease depresses cardiac output.
 - (3) Atrioventricular dissociation result in a loss of atrial boost leading to impaired ventricular filling.
 - (4) Abnormal intraventricular conduction impairs myocardial performance due to asynchronous ventricular contraction.
22. Starling law essentially means that within physiologic limits stroke volume is related to :
- (1) End systolic volume
 - (2) End Diastolic volume
 - (3) Ejection Fraction
 - (4) After load
23. Following definition of terms are correct except :
- (1) Preload is distending force of the ventricular wall, which is highest at end systole.
 - (2) After load is resisting force of the ventricular wall during systolic ejection, which is necessary to overcome peripheral vascular resistance or impedance.
 - (3) Contractility is intrinsic activity of the myocardium to generate force at a certain rate and time.
 - (4) Cardiac output is stroke volume multiplied by heart rate.
24. Following statements about Renin-Angiotensin system (RAS) are true except :
- (1) As heart failure sets in, there is activation of RAS.
 - (2) Cholinergic stimulation of beta-1 receptors in the juxtaglomerul apparatus in the kidney results in the release of renin.
 - (3) Renin cleaves four aminoacids from circulating Angiotensinogen to form decapeptide Angiotensin I.
 - (4) Angiotensin converting enzyme cleaves two aminoacids from Argiotensin I to form Argiotensin II.
25. Increased BNP (B-Type Natriuretic Peptide) concentrations may be found in following except :
- (1) Heart failure
 - (2) Myocardial Infarction
 - (3) Septic shock
 - (4) Obesity
26. Following statements about dyspnoea in left ventricular failure are true except :
- (1) The origin of dyspnea is likely multifactional.
 - (2) The most important mechanism for production of dyspnea is pulmonary congestion, with accumulation of interstitial or intraalveolar fluid in the alveolus.
 - (3) In early heart failure, dyspnoea is only observed during exertion.
 - (4) Dyspnea becomes more pronounced with onset of right ventricular failure and tricuspid regurgitation.

27. Following are some of the factors producing Paroxysmal Nocturnal Dyspnea except :
- (1) Increased resorption of fluid into the vascular space
 - (2) Elevation of diaphragms during recumbency
 - (3) Increased symphotetic activity during night
 - (4) Nocturnal depression of respiratory center
28. Following statements about signs in heart failure are true except :
- (1) There is usually tachycardia due to adrenergic activity.
 - (2) Elevated JVP reflects raised right atrial pressure.
 - (3) Pleural veins drain into both systemic and pulmonary veins. When both the venous systems are involved, pleural effusion develops.
 - (4) Pulsus alternans is seen in diastolic heart failure and indicates advanced myocardial disease.
29. As per Framingham criteria for diagnosis of heart failure, following constellation of signs and symptoms does not qualify to be diagnosed as heart failure.
- (1) Paroxysmal Nocturnal Dyspnea ; Dyspnoea on ordinary exertion ; Neck vein distention
 - (2) Radiographic cardiomegaly ; crepitations in the lungs ; Hepatomegaly
 - (3) Hepatojugular reflux ; $\sqrt{3}$ gallop ; Pleural effusion
 - (4) Bilateral ankle oedema ; Hepatomegaly ; Dyspnoea on ordinary exertion
30. In the setting of pulmonary edema on chest X-ray ; pulmonary venous pressure is likely to be :
- (1) 6 to 12mm Hg
 - (2) 12 to 18mm Hg
 - (3) 18 to 25mm Hg
 - (4) >25mm Hg
31. Following statement about Acute cardiac Asthma and Acute bronchial Asthma are true except :
- (1) Profuse sweating is usually present in Bronchial Asthma and usually not present in cardiac Asthma.
 - (2) There are more chances of patient being cyanotic in cardiac asthma than bronchial Asthma.
 - (3) In cardiac asthma, there are mainly crepitations and occasional rhonci and in bronchial asthma there are mainly rhonci and crepitations less prominent.
 - (4) Previous history of similar episodes is usually present in bronchial asthma and may or may not be present in cardiac asthma.
32. In the management of acute pulmonary oedema because of left ventricular failure ; following are recommended except :
- (1) 100 percent oxygen
 - (2) IV morphine
 - (3) IV Furosemide
 - (4) IV Metoprolol

33. Following statements about thiazide diuretics and similar agents in the management of congestive heart failure are true except :
- (1) When fluid retention is mild, a thiazide diuretic may be sufficient.
 - (2) Thiazide agents are generally ineffective when the glomerular filtration rate falls below 30-40 ml/hour.
 - (3) Metolazone maintains its efficacy down to a glomerular filtration rate of approximately 20-30 ml/minute but its duration of action is only for 4 to 6 hours.
 - (4) Adverse effect of thiazide diuretic include hypokalaemic, prerenal azotemia and skin rash.
34. Following statements about Beta Blockers and Heart failure are true except :
- (1) Large randomized trials have shown mortality reduction to the tune of 35 percent with betablockers.
 - (2) With B blockers there is improvement in ejection fraction over a period of 3-7 days.
 - (3) There is decrease in LV and-systolic volume in 4 to 12 months.
 - (4) There is decrease in LV and-diastolic volume and mass in 4 to 12 months.
35. Following statements about digitalis glycoside are true except :
- (1) It reduces heart rate via para sympathomimetic effects.
 - (2) Most of the positive inotropic effect is apparent when serum digoxin levels are between 0.7 to 1.2 ng/ml.
 - (3) Symptoms of digitalis toxicity include anorexia, nausea, headache, blurring or yellowing of vision and disorientation.
 - (4) Amiodarone is drug of choice for management of ventricular arrhythmia because of digitalis toxicity.
36. A 50 years old man, an old case of primary hypertension, has been found to have evidence of left ventricular hypertrophy on ECG and echocardiography. He has not shown any signs or symptoms of heart failure. As per ACC/AHA guidelines, he is considered to be in which stage of heart failure.
- (1) Stage A (2) Stage B (3) Stage C (4) Stage D
37. Insulin Resistance Syndrome is characterized by following except :
- (1) Hyperinsulinemia (2) Glucose intolerance
 - (3) Decreased HDL-C level (4) Decreased fasting plasma TG level
38. Cigarette use does following except :
- (1) Increases circulating fibrinogen (2) Inhibits platelets
 - (3) Increases heart rate (4) Appears to promote plaque disruption

39. Following statements of C-reactive Protein (CRP) are true except :
- (1) CRP is a marker of systemic inflammation.
 - (2) CRP has been shown to be an independent risk factor for the development of cardiovascular events.
 - (3) Weight loss by calorie restriction has been shown to decrease plasma CRP levels.
 - (4) In primary prevention trial, Pravastatin did not alter CRP levels.
40. Following statements about coronary circulation are true except :
- (1) Large epicardial coronary arteries are referred as conductance vessels.
 - (2) Intramyocardial arterioles are referred as resistance vessels.
 - (3) Atherosclerosis reduces lumen of the coronary arterioles.
 - (4) Abnormal constriction of coronary resistance vessels can also cause ischaemia and is referred as Prinzmetal's angina.
41. Following statements are true except :
- (1) Endothelial dysfunction can lead to disturbances in coronary blood flow.
 - (2) In vessels damaged by atherosclerotic process there is coronary constriction in response to a variety of substances that would normally elicit vasodilation.
 - (3) Endothelium produces both Endothelium Derived Relaxing Factor (EDRF) and endothelins.
 - (4) Unlike endothelium derived relaxing factor - nitrous oxide ; whose action lasts for minutes to hours, endothelin is inactivated in a few seconds.
42. Following statements about coronary auto regulation are true except :
- (1) When aortic pressure falls to the lower limit of autoregulation, coronary vessels are maximally dilated to intrinsic stimuli and flow becomes pressure dependant.
 - (2) The lower autoregulatory pressure limit increases during tachycardia.
 - (3) Resting coronary blood flow under normal haemodynamic condition averages 0.7 to 1.0 ml/minute/gm and can increase between four and five fold during vasodilation.
 - (4) Coronary collaterals also exhibit autoregulation.
43. Following statements about coronary arteries are true except :
- (1) In any cardiac ischaemic syndrome, the presence of epicardial coronary stenosis caused by atherosclerotic plaque is the most frequent finding.
 - (2) Experimental studies in dogs showed that the acute reduction of coronary diameter by more than 50 percent causes a measurable basal trans-stenotic pressure gradient.
 - (3) The stenotic resistance is linearly related to the length of the stenosis and to the flow turbulence caused by the stenosis irregularities.
 - (4) The lesser the basal trans-stenotic pressure gradient, the greater the reduction of coronary myocardial flow during effort.

44. Aggressive lipid lowering drug treatment of persons at various risk levels reduces coronary artery disease morbidity and mortality. Following are some of the primary prevention trials except :
- (1) The west of Scotland coronary prevention study
 - (2) The Airforce/Texas coronary atherosclerosis prevention study
 - (3) The heart protection study
 - (4) The Scandinavian Simvastatin survival study
45. Following statements about HMG COA reductase inhibitors are true except :
- (1) They effectively lower TC and LDL-C.
 - (2) Triglyceride levels are also reduced from 10 to 25 percent.
 - (3) They have minimal effect on apo A I and apo A II.
 - (4) In view of good safety profile ; monitoring of hepatic aminotransferase is not recommended.
46. Following statements about coronary artery bypass grafting are true except :
- (1) Intraoperative and postoperative mortality increases with severity of ventricular dysfunctions.
 - (2) Occlusion of venous grafts is observed in 50 percent of patients during the first post operative year.
 - (3) Long term potency of internal mammary implementation are higher than saphenous vein grafts.
 - (4) Graft potency are improved by meticulous treatment of risk factors particularly dyslipidemia.
47. As per Braunwald clinical classification of unstable Angina, Angina at rest within first one month but not within preceding 48 hours will be classified as :
- (1) Class I (2) Class II (3) Class III (4) Class IV
48. Following statements are true except :
- (1) Vast majority of myocardial infarctions result from occlusion of coronary artery due to thrombus propagating from a ruptured atheromatous plaque.
 - (2) The vulnerable plaque typically has substantial lipid core and is fibrous cap.
 - (3) Stable plaque has a relatively thick fibrous cap.
 - (4) Clinical data suggests that vulnerable plaque may often show luminal narrowing detectable by angiography than do stable plagues.

49. Following statements are true except :
- (1) The thrombus is non-occlusive in 80 percent of patients with unstable angina and is composed primarily of platelets.
 - (2) The thrombus associated with Q wave MI is occlusive in 80 percent of patients and has a high content of trapped red blood cells.
 - (3) There is distinct difference in pathophysiology of non-Q wave MI and unstable angina
 - (4) Diagnostic features of a Q wave MI involve increased level of myocardial enzymes as well as ST segment elevation and development of abnormal Q wave.
50. Following statements are true except :
- (1) Post MI remodelling is a heterogenous and regional process.
 - (2) Stunning is an acute irreversible LV dysfunction following reperfusion of an occluded vessel or transient ischaemia due to any cause.
 - (3) Hibernation is a chronic reversible LV dysfunction.
 - (4) It is important to diagnose hibernation because successful restoration of flow will lead to improvement in LV-function.
51. Following statements about clinical presentations of acute MI are true except :
- (1) Pain is the most common presenting complaint.
 - (2) Pain is usually reterosternal.
 - (3) In about 30 percent, chest pain radiates down the ulnar aspect of the left wrist, hand and fingers.
 - (4) The pain in MI may radiate as high as the occipital area and as low as symphysis pubis.
52. Following statements about right ventricular infarction are true except :
- (1) R V myocardial infarction should be suspected in the clinical setting of Acute Inferior wall MI.
 - (2) Electrocardiographically in most studies lead V₄ R to found to be more sensitive of all extra right precordial leads.
 - (3) The finding of an elevation in the atrial natriuretic factor level in patients with this condition has led to the suggestion that abnormally high levels of this peptide might be partly responsible for the hypotension.
 - (4) Clinically Kussmaul sign in the setting of inferior wall STEMI rules out right ventricular involvement.
53. A 54 yrs old man has been admitted in your ward with acute ant wall myocardial infarction. On examination his pulse rate is 100/minute, BP $\frac{110}{70}$ mm Hg, JVP not raised, m oedema lungs bilateral basal creptations. As per killip prognostic classification, he will be grouped in which class ?
- (1) Class I (2) Class II (3) Class III (4) Class IV

54. Following statements about Bradyarrhythmia in the setting of acute MI are true except :
- (1) Incidence of 1st degree AV block is less than 15 percent.
 - (2) First and Mobitz Type I AV block do not appear to affect survival.
 - (3) Mobitz type II AV block occurs in about 10 percent of patients.
 - (4) Complete AV Block occurs in about 5 percent of patients.
55. Following statements about intraventricular conduction disturbances during acute MI are true except :
- (1) The development of bundle branch block or fascicular block signifies an extensive infarct
 - (2) Isolated left anterior fascicular block is unlikely to progress into complete heart block
 - (3) Larger infarct is required to block left posterior fascicle compared to left anterior fascicle.
 - (4) RBBB occurs in approximately 2 percent of patients but has no effect on mortality.
56. Following statements about cardiac rupture following acute MI are true except :
- (1) Occurs in upto 24 percent of fatal AMIs.
 - (2) The free wall of the ventricle is the most common site.
 - (3) After cardiogenic shock and arrhythmia, it is the most common cause of death.
 - (4) It is more likely to occur in patients with hypertension particularly if it is associated with left ventricular hypertrophy.
57. Following are considered features of cardiogenic shock except :
- (1) Clinical evidence of hypoperfusion like cold extremities, perspiration, tachycardia and low urine output
 - (2) Systolic Blood Pressure < 80 – 90mm Hg
 - (3) LVEDP < 13mm of Hg
 - (4) PCWP \geq 18mm of Hg
58. Timing is critical for instituting CPR after cardiac arrest. Following statements are true except :
- (1) Within 15 seconds of cardiac arrest, patient loses consciousness.
 - (2) EEG becomes flat after 30 seconds.
 - (3) Pupils dilate fully after 30 seconds.
 - (4) Cerebral damage takes place within 90-300 seconds.
59. Following statements of acute pulmonary embolism are true except :
- (1) Acute unexplained dyspnea is often the presenting symptom of PE.
 - (2) T wave inversion in leads V₁ to V₄ suggests right ventricular strain in patients with acute PE.
 - (3) Normal values of D-dimer assay have high negative predictive value.
 - (4) If available ; radionuclide perfusion scintigraphy is better as initial imaging test in suspected case of pulmonary embolism compared to chest computed tomography.

60. Following statements about Inotropic drugs are true except :
- (1) Epinephrine compared with other inotropic drugs cause the greatest increase in the rate of energy usage and myocardial oxygen demand.
 - (2) Dobutamine is a synthetic drug similar to Dopamine.
 - (3) Other things being equal, in the clinical setting of hypotension after myocardial infarction, dopamine should be used if systolic blood pressure is less than 80–90mm of Hg and dobutamine should be used if systolic blood pressure is more than 80–90mm Hg.
 - (4) Phenylephrine has a pure beta agonist activity and no alpha agonist activity.
61. Regarding recording of BP in a lady with 36 weeks of pregnancy, which of the below given statement is correct ?
- (1) Phase V Korotkoff sounds should be taken as diastolic blood pressure
 - (2) Normally more than 10mm Hg difference in systolic BP is observed between the two upper limbs
 - (3) Recording should be done in the left lateral decubitus position
 - (4) A diastolic blood pressure of 90mm Hg is normal
62. Which of the following statement is **correct** ?
- (1) decrease in 1kg of body weight is associated with an average fall of 1.6mms of blood pressure
 - (2) presence of retinal hemorrhage indicates malignant hypertension
 - (3) intravenous ramipril is effective in hypertensive emergencies
 - (4) diuretics and ACE inhibitors are the first line of drugs in gestational hypertension
63. Which of the following statement regarding reno vascular hypertension is **incorrect** ?
- (1) May present as malignant hypertension
 - (2) Young individual without family history of hypertension
 - (3) Fibroplastic disease of renal artery is common in elderly
 - (4) Presence of abdominal bruit
64. Which of the following drugs **will not** cause pulmonary venous dilatation ?
- (1) Nitroglycerine
 - (2) Frusemide
 - (3) Morphine
 - (4) Sodium Nitroprusside
65. Which of the following beta blocker **does not** have vasodilatation property ?
- (1) Carvedilol
 - (2) Nebivolol
 - (3) Labetolol
 - (4) Acebutolol

66. Which of the following statements is **correct** ?
- (1) Renovascular hypertension presents with spells of nausea, headache, palpitation, sweating, nervousness and tremors
 - (2) Preeclampsia denotes elevated blood pressure after 12 weeks of gestation
 - (3) When diastolic blood pressure increases from 91mm Hg to 105mm Hg, risk of stroke increases six fold
 - (4) ACE inhibitors and thiazides reduce the frequency of recurrent strokes
67. The following are the correct dosages of drugs used to treat hypertensive emergencies **except** :
- (1) Nitroglycerine infusion at a rate of 5 – 100 microgram/ min
 - (2) Slow IV injection of 200 – 400mg of Labetalol
 - (3) Metoprolol 5mg IV
 - (4) Sodium nitroprusside infusion 0.25 – 10 microgram/kg/minute
68. Which of the following statement is **wrong** in choosing the antihypertensives ?
- (1) in a patient with hypertension and stable angina, betablocker is the drug of choice
 - (2) in hypertension and heart failure, diuretics are indicated
 - (3) in acute stroke, BP should be less than 130/90mm Hg
 - (4) ACE inhibitors can be used in chronic kidney disease provided serum creatinine levels do not exceed 35% above baseline
69. Which of the following statements regarding heart failure is **wrong** ?
- (1) ACE inhibitors are useful in all stages of heart failure
 - (2) Diuretics are used in stage C of heart failure
 - (3) A patient with coronary artery disease is in stage of A of heart failure
 - (4) Cardiac transplantation in cardiac failure has 5 year survival rate of about 30%
70. A patient on long term treatment for atrial fibrillation presents with anorexia, nausea and yellow vision. **The likely diagnosis is** :
- | | |
|-------------------------|-----------------------------|
| (1) tachycardiomyopathy | (2) digitoxicity |
| (3) infective hepatitis | (4) congestive hepatomegaly |
71. A well compensated cardiac failure patient, on treatment, gets admitted with sudden worsening of dyspnoea. The following can be the reasons **except** :
- | | |
|-----------------------------------|--------------------------------|
| (1) severe fluid restriction | (2) renal failure |
| (3) occurrence of tachyarrhythmia | (4) acute mitral regurgitation |

72. Which of the following statement about diuretics is **false** ?
- (1) When metolazone is added to furosemide clinical improvement can occur
 - (2) Eplerenone increases potassium secretion by distal convoluted tubule
 - (3) Continuous intravenous administration of loop diuretics may overcome diuretic resistance
 - (4) Metolazone acts on proximal convoluted tubule
73. Which is **true** ?
- (1) Pulsus alternans will persist inspite of successful treatment of heart failure
 - (2) Unilateral pleural effusion usually occurs in left side
 - (3) In constrictive pericarditis and severe TR, pedal oedema is more prominent than ascites
 - (4) Heart failure patients with wide QRS complex can be considered for cardiac resynchronization therapy
74. Regarding chest X-ray findings in cardiac failure, which is **correct** ?
- (1) When pulmonary venous pressure is 12 – 18 mm Hg, alveolar edema develops
 - (2) In pulmonary arterial hypertension, central and peripheral vessels become prominent
 - (3) Cephalisation denotes prominence of upper lobe veins
 - (4) Kerley B lines indicate alveolar edema
75. Which is **unusual** in cardiac tamponade ?
- | | |
|-----------------|----------------------|
| (1) dyspnoea | (2) elevated JVP |
| (3) bradycardia | (4) pulsus paradoxus |
76. Which one is **false** ?
- (1) Sodium and water retention causes pulmonary congestion and edema in long term
 - (2) Sympathetic stimulation increases HR and stroke volume and decreases energy expenditure
 - (3) Vasoconstriction increases BP but causes pump dysfunction by increase in after load in long term
 - (4) Hypertrophy helps to unload individual muscle fibres, but leads to cardiac cell death and cardiomyopathy of overload.
77. Which of the following is **not** true in heart failure ?
- (1) Increased sympathetic activity results in sodium retention
 - (2) Increased N terminal pro BNP is a reliable marker
 - (3) Warm extremities with narrow pulse pressure occurs in high out failure
 - (4) With RV failure, hepatomegaly, pedal edema and elevated JVP occur
78. The following statements are true about nicotinic acid **except** :
- (1) it decreases Lipoprotein (a)
 - (2) it increases HDL
 - (3) extended release preparations to be avoided
 - (4) in AIM-HIGH study did not show beneficial effect

79. The following are the indications for temporary transvenous pacing in acute myocardial infarction **except** in :
- (1) Complete heart block
 - (2) Bifascicular block
 - (3) Mobitz type I AV block
 - (4) Mobitz type II AV block
80. The following are the indicators of successful thrombolysis **except** :
- (1) relief of chest pain
 - (2) more than 50% resolution of ST elevation at 90 minutes
 - (3) accelerated idioventricular rhythm
 - (4) atrial fibrillation
81. In lipid metabolism-, which of the following is **incorrect** ?
- (1) ApoB100 is an essential component of chylomicron
 - (2) VLDL is rich in triglycerides
 - (3) Chylomicrons enter thoracic duct
 - (4) ApoA2 is a component of HDL
82. Which of the following about Lipoprotein (a) is **incorrect** ?
- (1) is a type of LDL
 - (2) has structural homology with plasminogen
 - (3) serum concentration is directly related to CHD risk
 - (4) secreted by endothelium
83. A 65 years old diabetic is admitted with chest pain of 2 hours duration. ECG shows evidence of acute inferior wall myocardial infarction. Which of the following strategy is **not correct** ?
- (1) Thrombolysis with streptokinase
 - (2) Primary PCI
 - (3) Either of above techniques
 - (4) Gp2b3a inhibitor
84. In management of pulmonary edema, mechanical ventilatation results in the following **except** :
- (1) elevation of intraalveolar pressure
 - (2) increase in pulmonary capillary pressures
 - (3) decrease in transudation of fluid from alveolar capillaries
 - (4) reduces venous return to thorax
85. Which of the following statement is **wrong** about pulmonary embolism ?
- (1) A normal chest X ray rules out pulmonary embolism
 - (2) D-Dimer estimation is a reliable screening test
 - (3) CT pulmonary angiogram provides notable and specific diagnosis
 - (4) V\Q scan is useful when radiographic contrast can not be used

86. Hypotension with elevated JVP is seen in the following clinical situations **except** :
- (1) pulmonary edema
 - (2) pulmonary embolism
 - (3) RV infarction
 - (4) Cardiac tamponade
87. Which of the following statement is **incorrect** regarding coronary circulation ?
- (1) In a myocardial bridge, coronary artery is intramural
 - (2) Myocardium extracts high and relatively fixed amount of oxygen
 - (3) Intramyocardial resistance vessels are fully dilated at rest
 - (4) Changing oxygen needs of heart influence vascular resistance
88. A known asthmatic and diabetic of 10 years duration, is admitted with retrosternal chest pain of 2 hours duration. His admission ECG showed ST elevation of 2mm in II, III, aVF, V3r. His pulse was 96/min. BP is 100/70mm Hg. JVP 7cm above sternal angle. Faint S3 is heard. Lungs are clear. **Which** of the following therapeutic **option** is to be **avoided** ?
- (1) Administration of Streptokinase of 15 Lakh Units
 - (2) Isosorbide Dinitrate 5mg 3 times a day orally
 - (3) Enteric coated Aspirin 300mgs orally
 - (4) Clopidogrel 300mg orally
89. A patient presents with acute anterior wall myocardial infarction with chest pain duration of $2\frac{1}{2}$ hours. He gives history of renal biopsy 3 days before. The cardiac catheterisation laboratory has an angiographic procedure going on which is likely to take another one hour. Which of the following statement about management is **incorrect** ?
- (1) Reperfusion chances in this patient is equal with fibrinolysis as well as primary PCI
 - (2) Thrombolysis is contraindicated
 - (3) Thrombolysis is the correct option
 - (4) Primary PCI is the only option available
90. Which of the following is **wrong** ?
- (1) In atrial fibrillation with hemodynamic compromise asynchronous cardioversion is indicated
 - (2) Intravenous Metoprolol will reduce the ventricular rate
 - (3) Intravenous Diltiazem is contraindicated for treating supraventricular tachyarrhythmias in patients with Wolf Parkinson White syndrome
 - (4) Loss of atrial kick and reduced ventricular filling time in atrial fibrillation leads to hypotension
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