

POST GRADUATE DIPLOMA IN CLINICAL
CARDIOLOGY (PGDCC)

00807

Term-End Examination

December, 2012

MCC-004 : COMMON CARDIOVASCULAR DISEASES - II

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 Sheets.
- (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 Sheets.
- (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. Which one is the least common major manifestation in a case of acute rheumatic fever ?
 - (1) Carditis
 - (2) Polyarthritits
 - (3) Chorea
 - (4) Subcutaneous nodules

2. Commonest valvular lesion due to carditis following acute rheumatic fever is :
 - (1) Mitral stenosis
 - (2) Mitral regurgitation
 - (3) Aortic stenosis
 - (4) Aortic regurgitation

3. Around 40% cases of acute rheumatic fever develop carditis. Which of the following feature may not be a result of carditis ?
 - (1) Pansystolic murmur at the apex
 - (2) Congestive heart failure
 - (3) First degree heart block
 - (4) Ejection systolic murmur at the pulmonary area

4. Group A streptococcus (GAS) is the pathogenic organism responsible for acute rheumatic fever. Some of our body tissues have antigenic similarities to the GAS antigens. Thus antibodies produced against the GAS antigens may crossreact with the body tissue antigens. Regarding this which of the following statement is incorrect ?
 - (1) Group specific polysaccharide of GAS wall is antigenically akin to glycoprotein found in human and bovine cardiac valves.
 - (2) The somatic antigens of the GAS cell wall and cell membrane are similar to human myocardial sarcolemma.
 - (3) The M protein of GAS crossreacts with human heart tissues particularly sarcolemmal membrane proteins and cardiac myosin.
 - (4) In chorea, antibodies directed against GAS cell membrane crossreacts with tissue in the frontal lobe of the brain.

5. The supportive evidence of antecedent GAS infection is essential to make a diagnosis of acute rheumatic fever. Which of the following statement is not true ?
 - (1) ASO titre may take upto 4 to 6 months to return to normal after GAS infection.
 - (2) When two serum samples are taken at 2 to 4 weeks interval show a minimum 4 fold rise, then the antibody tests are considered positive.
 - (3) The ASO titres of > 250 todd units in adults and > 333 todd units in children are considered positive.
 - (4) ADNase B levels remain elevated even after 6 months of acute rheumatic fever.

6. Various investigations take a major role in the diagnostic assessment in a case of rheumatic fever. Which of the following investigation is not routinely recommended ?
 - (1) Streptococcal antibody test
 - (2) Electrocardiogram
 - (3) Endomyocardial biopsy
 - (4) Chest X - ray

7. Patient with carditis following rheumatic fever are at high risk to develop complications. Which of the following statement is incorrect in such patients ?
- (1) Corticosteroids are contraindicated in carditis.
 - (2) In carditis with heart failure, strict bedrest is advised until heart failure is well controlled.
 - (3) Digitalis and diuretics may be considered for symptomatic relief in heart failure due to carditis.
 - (4) Salicylates may be used in mild carditis.
8. Group A Streptococcus (GAS) throat infection predisposes to Acute Rheumatic Fever (ARF). Which of the following statement about ARF is incorrect ?
- (1) 0.3 to 3% patients suffering from GAS infection develop ARF.
 - (2) In Indian patients a genetic linkage to HLA DR3 in patients with ARF has been demonstrated.
 - (3) A negative GAS antigen test rules out GAS infection in the throat.
 - (4) Rising ASO titre (> 250 todd unit in adult and > 333 todd unit in children) is more reliable evidence of recent GAS infection than a positive rapid antigen test.
9. Acute phase reactants (ESR, CRP) are important in the disease activity of acute rheumatic fever. All the followings are correct about acute phase reactants except :
- (1) These are almost always elevated in patients with arthritis and carditis.
 - (2) Increasing ESR may indicate increase in rheumatic fever activity.
 - (3) Decreasing ESR may indicate decrease in rheumatic fever activity.
 - (4) ESR always remain elevated in patients with rheumatic chorea.
10. Regarding the course and prognosis in rheumatic fever all of the followings are true except :
- (1) The course and prognosis of rheumatic fever is related to the severity of carditis.
 - (2) If patient had carditis in first attack of rheumatic fever, there is always a tendency to develop carditis in subsequent attacks of rheumatic fever.
 - (3) Majority of patients develop established valvular heart disease 10 years after the rheumatic fever even if they did not have carditis during the episode of acute rheumatic fever.
 - (4) With each recurrence of acute rheumatic fever with carditis, there is progressive deterioration in valvular lesion and myocardial function.
11. Regarding infective endocarditis, all of the following are true except :
- (1) Rheumatic heart disease in children and young adult is the most common predisposing cause of infective endocarditis in the developing countries.
 - (2) Predisposing conditions cannot be identified in 25 to 45% of patients.
 - (3) 55 to 75% patients with native valve infective endocarditis have predisposing factors like rheumatic valvular disease, mitral valve prolapse, degenerative heart valve disease, intravenous drug abuse etc.
 - (4) Viridans streptococci is the usual cause of acute infective endocarditis (Manifests with in 2 weeks of onset of infection).

12. Regarding blood culture in cases of suspected infective endocarditis which of the following statement is false ?
- (1) Blood culture should be obtained by way of fresh venepunctures and not through the indwelling intravascular devices.
 - (2) For suspected cases of acute infective endocarditis obtain three sets of blood cultures with in 5 to 10 mins of each other.
 - (3) There is no significant diagnostic benefit gained from using arterial versus venous blood for culture.
 - (4) One should wait for the fever spike to obtain blood for culture.
13. Which of the following statement regarding echocardiography to detect infective endocarditis vegetation is true ?
- (1) The sensitivity of trans thorasic echocardiography (TTE) for the detection of vegetation in native valve endocarditis (NVE) is more than 80%.
 - (2) In prosthetic valve endocarditis the ability to detect vegetation by TTE is limited by shadowing effect.
 - (3) The sensitivity of trans esophageal echocardiography (TEE) for detection of NVE is less than 60%.
 - (4) Once vegetation is detected echocardiography reliably establishes the diagnosis of infective endocarditis.
14. TEE should be performed in all of the following cases of suspected infective endocarditis except :
- (1) Difficult to image by TTE
 - (2) Possible prosthetic valve endocarditis
 - (3) Suspicion of paravalvular abscess
 - (4) INR more than 4 in a patient who is on oral anticoagulant and is suspected to have native valve infective endocarditis.
15. All of the following statements are true regarding antibiotic management of infective endocarditis except :
- (1) A synergistic bactericidal effect is required for optimal therapy of enterococcal endocarditis.
 - (2) Currently recommended antimicrobial regimens are based on MIC and MBC.
 - (3) If the MBC for a particular antibiotic for an organism is more than 10 times than that of MIC, it is known as a tolerant strain.
 - (4) Oral antimicrobial therapy is as good as the parenteral antibiotic therapy in treating infective endocarditis.

16. Which of the following statements regarding complications due to infective endocarditis is false ?
- (1) Congestive heart failure in infective endocarditis signifies grave prognosis.
 - (2) Systemic embolization occurs in 22 to 50% of patients cases of infective endocarditis.
 - (3) Anticoagulation can be safely continued in case of native valve endocarditis.
 - (4) Periannular extension of infection is more common in aortic valve IE compared to other valve IE.
17. Which of the following is an absolute indication for surgery in patients with infective endocarditis ?
- (1) Patient having a small uncomplicated vegetation responding well to antimicrobial therapy.
 - (2) Unstable prosthesis.
 - (3) Any case of prosthetic valve endocarditis.
 - (4) Endocarditis due to enterococci.
18. Which of the following procedure does not require infective endocarditis prophylaxis in a patient with moderate mitral regurgitation ?
- (1) Gall bladder surgery
 - (2) Cystoscopy, urethral dilatation
 - (3) Prostate surgery
 - (4) Cardiac catheterization
19. Which of the following pre-existing cardiac disorder carries a high risk of infective endocarditis ?
- (1) Mitral regurgitation
 - (2) Coronary artery disease
 - (3) Mitral valve prolapse without regurgitation
 - (4) Isolated secundum atrial septal defect
20. Which of the following pre-existing cardiac disorder carries a low risk of infective endocarditis ?
- (1) Prosthetic heart valve
 - (2) Aortic stenosis
 - (3) Cardiac pacemaker
 - (4) Patent ductus arteriosus
21. Which of the following is not a mitral valve apparatus ?
- (1) Mitral leaflets
 - (2) Cordae tendinae
 - (3) Papillary muscle
 - (4) Mitral isthmus
22. Which of the following wave form corresponds to ventricular systole ?
- (1) a wave
 - (2) v wave
 - (3) x descent
 - (4) y descent

23. A patient with severe mitral stenosis may develop pulmonary edema due to all of the following except :
- (1) Volume overload
 - (2) Atrial fibrillation
 - (3) Fever
 - (4) Sinus bradycardia at heart rate of 50 per minute
24. All of the following clinical findings suggest severe mitral stenosis except :
- (1) Loud S1
 - (2) Long mid diastolic murmur
 - (3) Short A2 - OS gap
 - (4) Loud Pulmonary component of S2
25. All of the following can be a complication resulting from severe mitral stenosis except :
- (1) Hemoptysis
 - (2) Left ventricular failure
 - (3) Left recurrent laryngeal nerve palsy
 - (4) Paroxysmal nocturnal dyspnea
26. Which of the following clinical feature suggests the mitral regurgitation to be significant ?
- (1) Loud S1
 - (2) Long systolic murmur
 - (3) LV S3
 - (4) Narrow pulse pressure
27. Mid systolic click is a feature of :
- (1) Bicuspid aortic valve
 - (2) Mitral valve prolapse
 - (3) Pulmonary stenosis
 - (4) Mitral stenosis
28. Trans thorasic echocardiogram is commonly performed in the valvular disorders. Which of the following condition necessitates requirement of trans esophageal echocardiogram for proper diagnosis ?
- (1) Mitral stenosis
 - (2) Aortic stenosis
 - (3) Atrial myxoma
 - (4) Left atrial appendage clot
29. All of the following echocardiographic features indicate the mitral regurgitation to be severe except :
- (1) Mitral regurgitant color area is more than 40% of LA area
 - (2) Eccentric jet reaching postero superior region of LA
 - (3) Vena contracta of 3mm
 - (4) MR jet seen inside pulmonary vein
30. Which of the following is not a feature of acute severe mitral regurgitation ?
- (1) Low cardiac output
 - (2) Cardiomegaly in chest X - ray
 - (3) Moderate to severe pulmonary artery hypertension
 - (4) Large Vy wave in pulmonary wedge pressure tracing

31. Indication of surgery in case of severe mitral regurgitation : all except :
- (1) Patient is symptomatic of dyspnea on minimal exertion.
 - (2) LV EF less than 60%.
 - (3) Resting pulmonary artery systolic pressure is more than 50mm Hg.
 - (4) LV endsystolic dimension is less than 45mm.
32. Which is the typical pulse type in case of severe aortic stenosis ?
- (1) Water hammer pulse
 - (2) Pulsus parvus et tardus
 - (3) Pulsus bisferiens
 - (4) Paradoxical pulse
33. Palpable S4 is common in :
- (1) Severe aortic stenosis
 - (2) Severe mitral stenosis
 - (3) Severe mitral regurgitation
 - (4) Severe aortic regurgitation
34. All of the following clinical features suggest aortic stenosis to be severe except :
- (1) Paradoxical split of S2
 - (2) Grade IV or more loud ejection systolic murmur at aortic area
 - (3) Palpable S4
 - (4) Wide pulse pressure
35. Lower limb systolic BP is usually higher than that of upper limb BP. Which of the following statement indicates the mitral regurgitation to be at least moderate ?
- (1) Lower limb systolic BP is higher by 20mm Hg.
 - (2) Lower limb systolic BP is higher by 40mm Hg.
 - (3) Lower limb systolic BP is higher by 60mm Hg.
 - (4) Lower limb systolic BP is higher by 80mm Hg.
36. Which of the following clinical and echocardiographic features in case of severe AR shows very high risk for aortic valve replacement ?
- (1) Associated angina, LVEF more than 50%.
 - (2) LVEDD 75 mm, LVEF : 45%.
 - (3) LVEF less than 25%, LVESD more than 60 mm.
 - (4) Severe AR with LVEF : 60%.
37. Which of the following feature is suggestive of cardiac tamponade ?
- (1) Echo free space all around the heart.
 - (2) Diastolic collapse of RV free wall.
 - (3) More than 25% variation in the tricuspid inflow velocity during different phases of respiration.
 - (4) IVC more than 20mm.

38. All of the following are associated with adverse outcome in HOCM except :
- (1) History of syncope.
 - (2) Severe LVH (more than 33mm).
 - (3) Ventricular tachycardia or nonsustained ventricular tachycardia in holter.
 - (4) Apical hypertrophic cardiomyopathy.
39. Which of the following type of pulse is characteristic for HOCM ?
- (1) Pulsus tardus
 - (2) Paradoxical pulse
 - (3) Bisferiens pulse
 - (4) Water hammer pulse
40. Maximum incidence of rheumatic fever is in the which of the following age group :
- (1) 5 to 15 years
 - (2) 10 to 20 years
 - (3) 1 to 5 years
 - (4) 20 to 30 years
41. All of the following features are characteristic for tricuspid regurgitation except :
- (1) Enlarged pulsatile liver
 - (2) Elevated JVP with sharp VY wave form
 - (3) Expiratory increase in the murmur intensity
 - (4) Short middiastolic murmur at the tricuspid area
42. All the following features is suggestive of constrictive pericardities except :
- (1) Increase in JVP during inspiration
 - (2) Prominent X descent
 - (3) Hepatomegaly with ascitis
 - (4) Pericardial knock
43. All of the following is true about prosthetic valve endocarditis except :
- (1) Late PVE appears 60 days after surgery.
 - (2) PVE may be nosocomial if endocarditis appears within 1 year of surgery.
 - (3) Ring abscesses are common in mechanical PVE.
 - (4) During initial months after surgery bioprosthetic valve carries higher risk of infection than mechanical prosthetic valve.
44. Major criteria for Rheumatic fever all except :
- (1) Carditis
 - (2) Polyarthritits
 - (3) Chorea
 - (4) Fever
45. Which of the following ECG feature is not suggestive of pericarditis ?
- (1) ST segment elevation with concavity upwards.
 - (2) Absence of reciprocal ST changes.
 - (3) PR segment depression.
 - (4) T inversion appears before ST segment becomes iso-electric.

46. Following statements about Rheumatic fever are the true except :
- (1) The epidemiology of acute rheumatic fever is closely connected with that of group A heterohaemolytic streptococcal phages.
 - (2) In India, the average age at presentation is between 15 - 20 years.
 - (3) It is more common in winter season.
 - (4) Carriers (patients with positive throat cultures without clinical history or rise in antibody titres) do not appear predisposed to rheumatic fever.
47. Following statements about Rheumatic fever are true except :
- (1) A small proportion (5 - 10 percent) of patients suffering from group A streptococcal throat infection develop Acute Rheumatic fever.
 - (2) The risk for development of Rheumatic fever after group A streptococcal throat infection is associated with genetic susceptibility.
 - (3) For confirmation of the initial diagnosis of Acute rheumatic fever, evidence of prior group A streptococcal infection is required.
 - (4) Several rapid group A streptococcal antigen tests are available but a negative test does not rule out the group A streptococcal infection.
48. Following statements about Acute Rheumatic Arthritis are true except :
- (1) It is the most common (occurring in 75 percent cases) manifestation of Acute Rheumatic fever.
 - (2) It involves large joints.
 - (3) It is typically fleeting in character.
 - (4) The arthritis phase frequently overlaps the onset of carditis and the two manifestations appear to be directly related in severity - patients with severe arthritis appear to have severe manifestation of carditis and vice versa.
49. Following statements about chorea in the setting of rheumatic fever are true except :
- (1) It is a late manifestation of rheumatic fever.
 - (2) At times, chorea may be the only manifestation of rheumatic fever.
 - (3) Involuntary choreiform movements do not occur during sleep.
 - (4) MRI scan of brain is diagnostic of rheumatic chorea.
50. Following statements about subcutaneous nodules in the setting of rheumatic fever are true except :
- (1) They are found in about 3 - 6 percent cases of acute rheumatic fever.
 - (2) They should be looked on external surfaces of the joints like elbows, knees and spine.
 - (3) They are typically subcutaneous, firm and painless.
 - (4) Their presence rules out carditis.

51. Patients with Acute Rheumatic fever is recommended 4 weeks bed rest and gradual ambulation over 4 weeks, if he meets the following criteria about his cardiac status :
- (1) No carditis
 - (2) Carditis with no cardiac enlargements
 - (3) Carditis with cardiac enlargement
 - (4) Carditis with heart failure
52. One of the following is not the correct recommendation for secondary prophylaxis of rheumatic fever in adults.
- (1) Inj. Benzathine Penicillin G 1M - 1.2 million units once in 3 weeks.
 - (2) Tab Penicillin V oral - 250 mgm OD daily.
 - (3) Tab sulphadiazine oral - 1 gm OD daily.
 - (4) Tab Erythromycin stearate oral - 250 mgm OD daily.
53. Following statements about infective Endocarditis are true except :
- (1) Infective Endocarditis (IE) is a microbial infection of the endothelial surface of the heart.
 - (2) Characteristic lesion of IE is vegetation.
 - (3) Heart valves are most commonly involved.
 - (4) 'Acute IE' term is used if patient presents with marked toxicity and progresses to valvular destruction within 60 days of onset of infection.
54. Acute IE is caused typically, although not exclusively by one of the organisms :
- (1) Streptococcus viridaus
 - (2) Streptococcus aureus
 - (3) Pseudomonas Aeruginosa
 - (4) Coagulase negative staphylococci
55. Commonest valve involved among cases of infective endocarditis among neonates with structurally normal heart valve is :
- (1) Mitral Valve
 - (2) Aortic Valve
 - (3) Tricuspid Valve
 - (4) Pulmonary Valve
56. Following statements about Fungal Endocarditis are true except :
- (1) Candida and Aspergillus species are the most common causes of fungal endocarditis.
 - (2) Valve Replacement and IV drug abuse are the major predisposition.
 - (3) Characteristic feature of fungal IE is bulky vegetation which is adherent and do not embolize.
 - (4) Most frequent fungi causing Prosthetic valve Endocarditis is Candida Albicans.

57. Following haemodynamic circumstances way injure the endothelium, initiating non-bacterial thrombotic endocarditis except :
- (1) A high velocity jet impacting endothelium
 - (2) Flow from high to a low pressure chamber
 - (3) Flow across a narrow orifice at high velocity
 - (4) Flow across a wide orifice at slow velocity
58. Of the signs enumerated below, the commonest sign of infective endocarditis is :
- (1) Fever
 - (2) Changing murmur
 - (3) Neurological deficit
 - (4) Embolic event
59. Following statements about systemic emboli and infective endocarditis (IE) are true except :
- (1) Emboli may antedate diagnosis of IE
 - (2) Embolic event may occur during or after antimicrobial therapy
 - (3) Incidence of embolic events is not influenced by administration of effective antimicrobial therapy
 - (4) Embolic splenic infarction may cause left upper quadrant abdominal pain and left shoulder pain
60. Following statements about neurological abnormalities and infective endocarditis are true except :
- (1) Neurological symptoms and signs occur in 30 to 40 percent of patients
 - (2) Intracranial haemorrhage is the most common neurological manifestation
 - (3) Intracranial haemorrhage may occur because of rupture of a mycotic aneurysm
 - (4) Intracranial haemorrhage may occur because of rupture of an artery due to septic arteritis at the site of embolic occlusion
61. As per Duke criteria; following set of criteria should be met for diagnosis of 'definite infective endocarditis' except :
- (1) Two major criteria
 - (2) One major and two minor criteria
 - (3) One major and three minor criteria
 - (4) Five minor criteria
62. As per Duke criteria for diagnosis of infective endocarditis, following constitute major criteria except :
- (1) Growth of typical micro-organisms for infective endocarditis from two separate blood cultures
 - (2) Oscillating intracardiac mass on valves or supporting structure on echocardiography
 - (3) New valvular regurgitation
 - (4) Major arterial emboli

63. In the pathogenesis of infective endocarditis, following is not due to immunological phenomenon :
- | | |
|---------------------|------------------------|
| (1) Osper's nodes | (2) Roth's spots |
| (3) Janeway Lesions | (4) Glomerulonephritis |
64. Following statements about periannular extension of infection in the setting of Infective Endocarditis (IE) are true except :
- (1) Occurs in 10 percent to 40 percent of all native valve IE
 - (2) Occurs in 5 percent to 10 percent of all prosthetic valve IE
 - (3) In prosthetic valve; usual primary site of infection is annulus rather than leaflet
 - (4) New onset and persistant conduction abnormalities in patients being treated for IE may suggest periannular extension
65. Following statements about spleen and Infective Endocarditis are true except :
- (1) Splenic infarction is a common complication of left sided IE (40%)
 - (2) Clonical splenomegaly, present in upto 30 percent cases of IE, is a reliable sign of splenic infarction or abscess
 - (3) Splenic rupture with haemorrhage is a rare complication of infarction
 - (4) Successful therapy for splenic abscess requires drainage percutaneously or splenectomy
66. Following cardiac disorders are at relatively high risk for Infective Endocarditis except :
- | | |
|----------------------------|--------------------------|
| (1) Prosthetic heart valve | (2) ASD Seandune |
| (3) PDA | (4) Aortic regurgitation |
67. Following are the regimens recommended, 30 - 60 minutes before procedure for prophylexis against endocarditis with dental procedure except :
- | | |
|------------------------------|--------------------------------|
| (1) Ampicillin 2 gm 1M or 1V | (2) Amoxycillin 2.0 gm orally |
| (3) Ceftriaxone 1gm 1M or 1V | (4) Clindamycin 300 mgm orally |
68. Following statements about Mitral Valve are true except :
- (1) Mitral Valve Annulus is a saddle shaped structure
 - (2) Change in the posterior left atrial wall distort mitral annulus and its contraction
 - (3) Anterior leaflet occupies about two thirds and posterior leaflet about one third of annulus
 - (4) Systolic contraction of the papillary muscles helps leaflets to overcome the systolic pressure and remain closed during systole without prolapse

69. Following statements about rheumatic mitral stenosis are true except :
- (1) The cardinal symptom of mitral stenosis is dyspnea on exertion
 - (2) During sinustachycardia, pressure gradient across mitral valve may increase
 - (3) Instance between aortic closure sound and opening snap indicates severity of mitral stenosis
 - (4) In pure or predominant mitral stenosis, RRS axis between 60 to 90 degrees suggests a valve area more than 1.3 sq.cm.
70. Following statements about rheumatic mitral stenosis and atrial fibrillation are true except :
- (1) Onset of atrial fibrillation is related to severity of mitral stenosis
 - (2) All patients with persistent atrial fibrillation should receive anticoagulants
 - (3) All patients with intermittent atrial fibrillation should receive anticoagulants
 - (4) Patients with dilated left atrium more than 5 cm, should also be considered for oral anticoagulants even if there is no atrial fibrillation
71. Following is the most common valvular abnormality seen in clinical practice :
- (1) Mitral regurgitation
 - (2) Mitral stenosis
 - (3) Aortic regurgitation
 - (4) Aortic stenosis
72. The most common cause of Myocarditis in our country is :
- (1) Viral
 - (2) Rheumatic
 - (3) Beta haemolytic streptococcal infection
 - (4) Tuberculosis
73. Following statements about hypertrophic cardiomyopathy (HCM) are true except :
- (1) HCM is transmitted as a mendelian trait with an autosomal recessive pattern of inheritance
 - (2) It is characterized by in appropriate myocardial hypertrophy
 - (3) There is LV outflow obstruction in about 25% cases of HCM
 - (4) Subaortic gradients in HCM are often dynamic
74. Commonest type of Left Ventricular (LV) hypertrophy in Hypertrophic cardiomyopathy (HCM) is :
- (1) Symmetric LV Hypertrophy
 - (2) Septal Hypertrophy
 - (3) Atrial Hypertrophy
 - (4) Post wall Hypertrophy
75. Following statements about ECG changes in Hypertrophic cardiomyopathy are true except :
- (1) ECG changes usually follow the echocardiographic changes.
 - (2) Abnormal Q are seen in 25 - 50 percent of patients.
 - (3) Giant negative T waves are seen in Atrial cardiomyopathy.
 - (4) ECG changes suggestive of WPW syndrome may be seen in 5 percent of cases.

76. Following statements about clinical manifestations of hypertrophic cardiomyopathy are true except :
- (1) Usually the apex is palpable
 - (2) There may be double apical impulse
 - (3) S₄ may be heard.
 - (4) Systolic murmur is best heard at right upper sternal border with radiation to the carotids
77. Following statements about restrictive cardiomyopathy are true except :
- (1) Symptoms are those of pulmonary and systemic congestion
 - (2) RBBB is common but LBBB also can occur
 - (3) X-ray may show absence of cardiomegaly and signs of pulmonary venous hypertension
 - (4) In restrictive cardiomyopathy because of endomyocardial fibrosis; there is diminution of ventricular volumes.
78. Following statements about arrhythmogenic right ventricular cardiomyopathy are true except :
- (1) It is marked by myocardial cell loss with partial or total replacement of RV muscle by adipose and fibrous tissue
 - (2) Physical examination is usually normal
 - (3) ECG shows inverted T in right precordial leads
 - (4) They develop reentrant ventricular tachycardia of RV origin; RBBB in configuration, usually precipitated by exercise
79. Following statements about constrictive pericarditis are true except :
- (1) The thickened and rigid pericardium causes constriction of the heart
 - (2) The thickened rigid pericardium can cause dissociation of intracardiac and intrathoracic pressures and elevation of systolic intracardiac pressures
 - (3) Uniform constriction of all the four cardiac chambers results in equalization of diastolic pressures in all the four chambers
 - (4) In the diastolic ventricular pressure tracing 'square root' sign has been described
80. Following statements about cardiac Tamponade are true except :
- (1) Cardiac tamponade is the situation where increase in pericardial fluid raises the intracardiac pressure
 - (2) Progressive increase in the pericardial fluid results in progressive increase in intracardiac pressure till a critical volume is reached, beyond which small increases result in significant increase in intracardiac pressure
 - (3) The compliance of the pericardium and the rate of accumulation of fluid decides the critical volume
 - (4) Left ventricular early diastolic collapse is quite sensitive sign for diagnosis of cardiac tamponade on 2 - 9 echocardiography

81. Tricuspid stenosis per se is uncommon but the commonest etiology of tricuspid stenosis is :
- (1) Rheumatic (2) Congenital
(3) Carcinoid disease (4) Infective Endocarditis
82. Acute mitral regurgitation is often due to except :
- (1) Acute myocardial infarction (2) Prosthetic valve dehiscence
(3) Rheumatic heart disease (4) Hypertrophic cardiomyopathy
83. 50 year old female has increasing shortness of breath since past few months. On examination she is in CHF with AF. Echo shows enlarged LV, concentric hypertrophy, decreased LV function with LV EF of 40%, narrowing of aortic valve with peak gradient 45mmHg. She was stabilized with decongestive measures. What do you do next ?
- (1) Manage conservatively with medication as she is a high risk surgical candidate
(2) Aortic balloon valvuloplasty
(3) Aortic valve replacement I
(4) Cardiac transplant
84. Typical murmur of valvular aortic stenosis is :
- (1) Crescendo - decrescendo systolic murmur
(2) Long decrescendo murmur
(3) Continuous murmur in Rt.2nd space
(4) Early diastolic murmur
85. Sudden worsening of symptoms in a stable patient of chronic MR is not due to :
- (1) Chordal rupture (2) Infective endocarditis
(3) Onset of Arrhythmias (4) Sinus Tachycardia
86. Normal Mitral Valve Area is :
- (1) 1.5 - 2.5 cm² (2) 2.5 - 4 cm²
(3) 4 - 6 cm² (4) 2 - 3 cm²
87. Find out the most appropriate answer of the statement - thrill is very rare in :
- (1) A.S. (2) MS (3) MR (4) AR
88. Causes of hemoptysis in mitral stenosis are except :
- (1) Segmental lung consolidation (2) Winter bronchitis
(3) Pulmonary infarction (4) Pulmonary embolism

89. Pulses paradoxus in cardiac tamponade is more marked with :

- (1) Over hydration
- (2) Dehydration
- (3) Pulmonary artery hypertension
- (4) RV infarction

90. Which of the following drugs does not have mortality benefit in DCMP ?

- (1) Frusemide
 - (2) ACE Inhibitors
 - (3) Carvedilol
 - (4) Spironolactone
-