

POST GRADUATE DIPLOMA IN CLINICAL
CARDIOLOGY (PGDCC)

00543

Term-End Examination

December, 2013

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. Following statements about Spleen and Infective Endocarditis are true except :
 - (1) Clinical Splenomegaly is a reliable sign of splenic abscess
 - (2) Abdominal CT or MRI appear to be the best tests for diagnosis of splenic abscess
 - (3) Persistent or recurrent bacteremia, persistent fever or other signs of sepsis may suggest splenic abscess
 - (4) Where indicated in the setting of splenic abscess, splenectomy should be performed before valve replacement surgery

2. Major Duke clinical criteria for diagnosis of Infective Endocarditis includes all except :
 - (1) Fever
 - (2) New valvular regurgitation
 - (3) Intra cardiac mass
 - (4) Positive blood culture for typical micro organisms

3. If Infective Endocarditis suspected initial TEE done in all except :
 - (1) Prosthetic valve
 - (2) High risk for endocarditis related complications
 - (3) Low clinical suspicion
 - (4) Difficult imaging

4. Cardiac disorder with very low risk of Infective Endocarditis is :

(1) MS	(2) ASD (Secundum)
(3) TGA	(4) VSD

5. Drug which is especially added to the usual regimen only in the treatment of prosthetic valve endocarditis is :

(1) Penicillin	(2) Rifampicin
(3) Ceftriaxone	(4) Gentamicin

6. Absolute indications for surgery in patients with Infective Endocarditis are all except :
- (1) Perivalvular extension of Infection, Intracardiac fistula
 - (2) Unstable prosthesis
 - (3) Unavailable effective antimicrobial therapy
 - (4) Uncontrolled Infection despite optimal antimicrobial therapy
7. Together all of the following bacteria are responsible for >80% of all instances of infective endocarditis except :
- (1) Staphylococcus aureus
 - (2) Streptococcus species
 - (3) Entero cocci
 - (4) HACEK group
8. Culture Negative mimics of infective endocarditis are all except :
- (1) Atrial myxoma
 - (2) Acute Rheumatic fever
 - (3) Thrombotic thrombocytopenic purpura
 - (4) Idiopathic thrombocytopenic purpura
9. Immunological phenomenon are all except :
- (1) Janeway lesion
 - (2) Osler's nodes
 - (3) Roth's spots
 - (4) Glomerulonephritis
10. Minor Jones criteria for diagnosis of Acute Rheumatic fever are all except :
- (1) Fever
 - (2) arthralgia
 - (3) arthritis
 - (4) leucocytosis
11. In neonates infective endocarditis typically involves :
- (1) Mitral valve of structurally normal heart
 - (2) Mitral valve of structurally abnormal heart
 - (3) Tricuspid valve of structurally abnormal heart
 - (4) Tricuspid valve of structurally normal heart

12. Mycotic aneurysms due to Infective endocarditis occur most frequently in :
- (1) visceral artery
 - (2) Intracranial artery
 - (3) Arteries of upper limbs
 - (4) Arteries of lower limbs
13. ECG changes in acute pericarditis are all except :
- (1) PR segment depression
 - (2) ST segment elevation with concavity upwards and widespread
 - (3) No reciprocal ST change
 - (4) Development of Q wave
14. Most sensitive sign of cardiac tamponade on Echo :
- (1) Swinging heart motion
 - (2) RA diastolic collapse
 - (3) RV early diastolic collapse
 - (4) Respiratory variation of atrioventricular valve flow patterns
15. Signs associated with CCP are all except :
- (1) Kussmaul's sign
 - (2) Friedrich's sign
 - (3) Carbello's sign
 - (4) Square root sign
16. Pathological hallmark of Rheumatic carditis is :
- (1) Pancarditis
 - (2) Aschoff body
 - (3) Aschoff nodules
 - (4) Valvulitis
17. In acute Infective endocarditis, commonest organism is :
- (1) Staphylococcus aureus
 - (2) Streptococcus viridans
 - (3) Streptococcus haemolyticus
 - (4) Enterococci
18. In native valve endocarditis, CHF occurs more frequently with Infection of :
- (1) Tricuspid valve
 - (2) Mitral valve
 - (3) Aortic valve
 - (4) Pulmonary valve

19. Anti coagulation is contraindicated in :
- (1) Native valve endocarditis
 - (2) Prosthetic valve endocarditis
 - (3) Both in native and prosthetic valve
 - (4) In prosthetic valve endocarditis without embolic episode
20. The highest incidence of embolic events is seen in all except :
- (1) Aortic valve infections
 - (2) Mitral valve infections
 - (3) Tricuspid valve infections
 - (4) Prosthetic valve infections at any place
21. Chances of embolism in infective endocarditis is less with infection by :
- (1) Staphylococcus aureus
 - (2) Streptococcus viridans
 - (3) Candida
 - (4) HACEK
22. Pulsus paradoxus is not found in :
- (1) Acute LVF
 - (2) Cardiac tamponade
 - (3) Effusive constrictive pericarditis
 - (4) COAD
23. GAS throat infection leads to acute rheumatic fever in :
- (1) 0.3 – 3%
 - (2) 3 – 13%
 - (3) 13 – 30%
 - (4) < 0.3%
24. High ASO titre indicates :
- (1) Recent GAS infection
 - (2) Acute Rheumatic fever
 - (3) Rheumatic heart disease
 - (4) Infective endocarditis
25. Drug of choice for secondary prevention of rheumatic fever is :
- (1) Sulfa diazine
 - (2) Erythromycin
 - (3) Benzthine penicillin
 - (4) Oral penicillin

26. Roth's spots are seen in :
- (1) Heart (2) Palms
(3) Fundus (4) Pharynx
27. In the setting of native valve infective endocarditis periannular extension is more common in the following valves :
- (1) Mitral (2) Aortic (3) Tricuspid (4) Pulmonary
28. Following gram -ve bacteria form part of so called HACEK group except :
- (1) Haemophilus (2) Actinobacillus Actinomycetem comitans
(3) Cardiobacterium hominis (4) Klebsiella pneumonia
29. The commonest micro organism for prosthetic valve endocarditis within 2 - 12 months after surgery is :
- (1) Coagulase negative staphylococci (2) Staphylococcus aureus
(3) Gram -ve bacilli (4) Fungi candida species
30. Following statements about Antistreptolysin O (ASO) titre are true except :
- (1) When two serum samples are taken at 2 - 4 weeks interval, show a two fold rise, test is considered positive.
(2) ASO titre >250 Todd units in adults is positive
(3) ASO titre >333 Todd units in children is positive
(4) ASO titre remains elevated longer than Anti-DNAase B titre
31. Following statements about Acute Rheumatic carditis are true except :
- (1) If the first episode of Acute rheumatic fever is accompanied by carditis, the recurrences also manifest carditis
(2) Mid diastolic murmur at mitral area may be heard.
(3) Pansystolic murmur at mitral area
(4) Heart blocks never occur

32. Sign absent in Acute Severe MR is :
- (1) S3 (2) S4
(3) Cardiomegaly (4) Short often inaudible systolic murmur
33. Following symptoms and life span combination in AS is true except :
- (1) Angina - 5 yrs (2) Syncope - 3 yrs
(3) Heart failure symptoms - 6 yrs (4) None
34. Complication of MS which is not related to severity are all except :
- (1) AF (2) IE (3) Hemophysis (4) PAH
35. Severity of MS is decided clinically by all of the following except :
- (1) Length of diastolic murmur (2) A₂ - OS gap
(3) Loudness of first heart sound (4) PAH
36. Most accurate method of measuring MVA on Echo is :
- (1) Planimetry (2) Continuity equation (3) PHT (4) PISA
37. Mean gradient across mitral valve on CWD which indicates severe stenosis is :
- (1) > 5 mm Hg (2) > 2 mm Hg
(3) > 7 mm Hg (4) > 10 mm Hg
38. Severe MR on Echo is diagnosed by all except :
- (1) MR jet reaches posterior wall of LA
(2) Pulmonary vein systolic flow reversal
(3) Disruption of mitral valve apparatus
(4) LA size is \geq 5.5 cm

39. In patients with acute rheumatic fever, which is false :
- (1) About 40% develop carditis
 - (2) About 66% of patients with carditis develop RHD on follow up
 - (3) Carditis is the most common manifestation of acute Rheumatic fever
 - (4) Erythema margination is a rare manifestation
40. Causes of hemoptysis in MS are all except :
- (1) Pulmonary apoplexy
 - (2) Pulmonary embolism
 - (3) Winter bronchitis
 - (4) Infective endocarditis
41. In patients with low gradient severe AS dobutamine infusion results in all except :
- (1) Minimal or no increase in aortic valve area
 - (2) Transaortic gradient decreases
 - (3) Indicates benefit from aortic valve replacement
 - (4) Increase in peak velocity
42. Septal ablation in hypertrophic cardio myopathy can cause all except :
- (1) Reduction of LVOT obstruction
 - (2) Reduction of MR
 - (3) Complete heart block
 - (4) Atrial fibrillation
43. Persistent fever in patients with infective endocarditis on treatment with sensitive antibiotics may indicate all except :
- (1) Hypersensitivity to antibiotics
 - (2) Metastatic abscess
 - (3) Always microbial resistance to treatment
 - (4) Catheter related infection

44. Open mitral valvotomy is better than ballon mitral vavotomy because :
- (1) It has better immediate and long term results
 - (2) It has less morbidity
 - (3) It requires shorter hospitalization
 - (4) It is useful in patients with clots in the left atrium
45. Pregnancy is tolerated in patients with Mitral stenosis in all except :
- (1) Mitral stenosis is mild or moderate
 - (2) Close medical supervision is available
 - (3) Mitral valve area is < 1 sq cm
 - (4) Balloon mitral valvotomy could be done at the appropriate time
46. Murmur of HOCM increase with all except :
- (1) Valsalva
 - (2) Standing
 - (3) Bradycardia
 - (4) Digitalis
47. Dilated Cardiomyopathy occurs with all except :
- (1) Alcohol
 - (2) Loeffler's syndrome
 - (3) Viral myocarditis
 - (4) Peripartum cardiomyopathy
48. Carcinoid syndrome involves which valve primarily :
- (1) Mitral valve
 - (2) Aortic valve
 - (3) Tricuspid valve
 - (4) Pulmonary valve
49. Which of the following drugs does **not** have mortality benefit in DCMP :
- (1) Furosemide
 - (2) ACEI
 - (3) Carvedilol
 - (4) Spironolactose
50. Ewart's sign is found in :
- (1) Large pericardial effusion
 - (2) Acute AWMI
 - (3) Complete AV block
 - (4) HOCM

51. Nocturnal angina is a classical feature of :
- (1) PAH (2) MS (3) Severe AR (4) Severe AS
52. Possibility of sudden cardiac death in asymptomatic severe AS is :
- (1) 0.4% per annum (2) 4% per annum
(3) 2% per annum (4) 10% per annum
53. If MR murmur radiates towards axilla it indicates all except :
- (1) Anterior leaflet abnormality (2) Posterior leaflet abnormality
(3) Ischaemic cardiomyopathy (4) Dilated cardiomyopathy
54. In chronic MR without LVF :
- (1) LVEF is Normal (2) LVEF is more than normal
(3) LVEF is less than Normal (4) LVEF improves after surgery
55. Balloon aortic valvuloplasty (BAV) is the procedure of choice in AS in :
- (1) All valvular AS
(2) In severe AS in adult with Normal LV function
(3) In children and young individuals
(4) In elderly patients with calcified valves
56. Which is **wrong** statement in relation to severe AR :
- (1) Peripheral signs of AR are not seen in acute AR
(2) Peripheral signs of AR are marked with left ventricular dysfunction
(3) Peripheral signs are better detected with associated AS
(4) Peripheral signs indicates severity of AR with normal left ventricular function

57. Which is wrong statements in relation to stabilization of patient with Acute severe AR :
- (1) Vasodilator like Nitroprusside is helpful
 - (2) Inotropes may be used
 - (3) Beta blocker are not indicated
 - (4) IABP is indicated
58. Gallavardin phenomenon is found in :
- (1) AS
 - (2) AR
 - (3) MS
 - (4) MS and AR
59. Potential reversible cause of dilated cardiomyopathy are all except :
- (1) Anthracycline cardiomyopathy
 - (2) Tachycardiomyopathy
 - (3) Alcoholic cardiomyopathy
 - (4) Arrhythmogenic right ventricular Cardiomyopathy
60. In Restrictive cardiomyopathy following are found except :
- (1) Heart is not or only minimally dilated
 - (2) Both atria are enlarged
 - (3) Symptoms of both pulmonary and systemic congestion
 - (4) BBB on ECG is uncommon
61. Which of the following combination increase outflow gradient and systolic murmur in HOCM :
- (1) ↓ Contractility, ↓ preload, ↓ afterload
 - (2) ↑ Contractility, ↓ preload, ↓ afterload
 - (3) ↓ Contractility, ↑ preload, ↑ afterload
 - (4) ↑ Contractility, ↑ preload, ↓ afterload

62. Following indicates adverse outcomes in HOCM except :
- (1) History of syncope/SCD
 - (2) Severe LVH > 33 mm
 - (3) LVOT obstruction > 30 mmHg at rest
 - (4) Late onset of disease
63. Myocarditis should be suspected under following circumstances except :
- (1) Antecedent viral infection, diffuse ST-T changes on ECG and LV dysfunction
 - (2) Cardiac failure of no obvious etiology
 - (3) Ventricular tachyarrhythmia in absence of obvious cause
 - (4) Almost all cases of prepartum cardiomyopathy
64. The valve area of moderate AS is :
- (1) 3 cm²
 - (2) 1.5 cm²
 - (3) < 1 cm²
 - (4) > 1.5 cm²
65. ECG change not usually seen in AS :
- (1) RBBB
 - (2) 1° Heart block
 - (3) CHB
 - (4) AF
66. Severe AR presents the following feature in echo cardiography :
- (1) Holodiastolic flow reversal in descending aorta
 - (2) Regurgitant jet width/LVOT diameter ≤30%
 - (3) PHT ≥ 400 msec
 - (4) LVEDD ≤ 60 mm
67. Severe primary TR will not have symptom of :
- (1) Fatigue
 - (2) Effort intolerance
 - (3) Abdominal fullness
 - (4) PND
68. Systolic murmur increases with Valsalva manonever in :
- (1) Valvular AS
 - (2) MR
 - (3) AS
 - (4) HOCM

69. Following drug is beneficial in a patient of MR in sinus rhythm :
- (1) Beta blocker (2) Digoxin (3) Vasodilator (4) Diuretic
70. The following patients of MR do better after mitral valve surgery :
- (1) With preserved LV function (2) High NYHA class
(3) Large LVEDV (4) With poor LV function
71. Patients with chronic severe AR may be :
- (1) Symptomatic very early
(2) Asymptomatic for many years
(3) Present with LV dysfunction very early
(4) Present with sudden death
72. In TS following is not seen clinically :
- (1) Prominent a wave (2) Slow y descent
(3) Diastolic murmur (4) Severe PAH
73. ECG of Arrhythmogenic Right Ventricular dysplasia shows following features except :
- (1) Inverted T in right precordial lead
(2) Tall T in V₅, V₆
(3) VT of RV origin
(4) VT with LBBB pattern
74. BMV score of what predicts a favourable outcome :
- (1) < 8/16 (2) < 9/16 (3) < 7/17 (4) < 8/17
75. All of the following would increase the peak gradient across mitral valve except :
- (1) AF \bar{C} FVR (2) Fever (3) Sinus Bradycardia (4) Anaemia

76. Mitral Balloon valvuloplasty is **not** recommended in all except :
- (1) LA or LAA clot
 - (2) Low valve score
 - (3) Extensive calcification
 - (4) Associated Moderate to severe MR
77. Sudden worsening of symptoms in a stable patient of chronic MR is not due to :
- (1) Chordal rupture
 - (2) Infective endocarditis
 - (3) Onset of AF
 - (4) Sinus tachycardia
78. Surgery is not indicated in a patient of MR in :
- (1) Asymptomatic patient with normal LV function
 - (2) Symptomatic patient with normal LV function
 - (3) Asymptomatic patient with LVEF < 60%
 - (4) Asymptomatic patient with LVESD > 45 mm
79. X-ray chest findings in pure compensated AS can be all except :
- (1) Post stenotic dilatation aorta
 - (2) Calcification of aortic valve
 - (3) Cardiomegaly
 - (4) Mitral annular calcification
80. Angina is more pronounced in patients with AR of what etiology :
- (1) Bicuspid aortic valve
 - (2) Rheumatic
 - (3) Syphilitic
 - (4) Marfan
81. Surgery is indicated in patients of Asymptomatic severe AR with one of the following :
- (1) LVEF < 50%, LVESD > 55 mm
 - (2) LVEF > 50%, LVESD < 55 mm
 - (3) LVEF < 50%, LVESD < 55 mm
 - (4) LVEF > 50%, LVESD > 55 mm

82. Tricuspid regurgitation murmur increases on Inspiration, this is called :
- (1) Carey coomlis sign (2) Corrigan's sign
(3) Carvello's sign (4) Gallavardin sign
83. Tricuspid stenosis is considered significant when :
- (1) $MG \leq 7$ mmHg or PHT ≤ 190 msec
(2) $MG \geq 7$ mmHg or PHT ≥ 190 msec
(3) $MG \leq 7$ mmHg or PHT ≥ 190 msec
(4) $MG \geq 7$ mmHg or PHT ≤ 190 msec
84. Echo scoring to predict valvuloplasty outcomes depends on following points except :
- (1) Mobility of leaflets (2) Calcification
(3) Subvalvular apparatus (4) MR
85. Find out **wrong** statement in relation to severe AS :
- (1) Only 50% of patients with degenerative AS have associated CAD
(2) LV diastolic dysfunction sets in early
(3) IE is common in calcific AS
(4) Angio dysplasia of ascending colon is a known association of severe valvular AS
86. Adverse outcome in Dilated cardiomyopathy is due to all except :
- (1) Low EF
(2) Low LV mass
(3) Low exercise peak O_2 consumption
(4) \leq Moderate MR
87. Most common cause of Myocarditis is because of following Infection :
- (1) Coxsackie B virus (2) HIV
(3) CMV (4) HCV

88. Following are true of HOCM except :

- (1) It is a genetic disorder due to mutations in the gene that encodes for B cardiac myosin heavy chain
- (2) Echocardiographic changes usually precedes the onset of ECG changes
- (3) There is asymmetric septal hypertrophy as seen by septal to posterior wall thickness ratio of ≥ 1.5
- (4) Interventional treatment is indicated when disease is refractory to medical treatment and gradient of at least 50 mmHg across LVOT

89. Mac Collum's path is found in :

- (1) LA (2) RA (3) LV (4) RV

90. Following statements about electrocardiographic changes in MS are true except :

- (1) P wave axis is usually between $+45$ to -30°
- (2) QRS axis correlates well with the severity of MS and degree of pulmonary hypertension
- (3) QRS axis $< 60^\circ$ suggest a valve area $< 1.3 \text{ cm}^2$
- (4) Absence of Right axis deviation in the presence of features of pulmonary hypertension should suggest other associated lesions causing LVH

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