

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

Term-End Examination

December, 2015

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 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. The peak incidence of Rheumatic Fever occurs in the following age group :
 (1) < 5 years (2) 5 - 15 years (3) 15 - 25 years (4) 25 - 35 years

2. Child is said to be suffering from 'Juvenile' mitral stenosis if the age of child is :
 (1) < 5 years (2) 5 - 15 years (3) 15 - 25 years (4) 25 - 35 years

3. Following statements are true except :
 (1) Organism implicated for initiation in Rheumatic Fever is Group A beta-hemolytic streptococcus
 (2) The long held opinion that only streptococcal pharyngitis and not streptococcal skin infections may be followed by Acute Rheumatic Fever has been challenged
 (3) 0.3 - 3 percent of patients suffering from Group A beta-hemolytic streptococcus throat infections develop Acute Rheumatic Fever
 (4) In Indian patients with acute rheumatic fever, genetic linkage to Human Leucocyte Antigen - DL7 has been demonstrated

4. Following statements are true except :
 (1) Group A streptococcus (GAS) produces somatic and extracellular antigens
 (2) Group specific polysaccharide of GAS wall is antigenically akin to glycoprotein found in human and bovine cardiac valves
 (3) M protein of GAS cross reacts with human heart tissues particularly sarcolemmal membrane proteins and cardiac myosin
 (4) In chorea, antibodies directed against GAS cell membrane cross react with tissues in the frontal lobe of the brain

5. Following statements are true except :
 (1) Acute Rheumatic Fever (ARF) is considered a multisystem autoimmune disease
 (2) Exact role of hot cross reacting antibodies in the pathogenesis of ARF is not clear
 (3) C₃ C₄ complements are reduced in ARF
 (4) CD₄ / CD₈ cell ratio is raised in ARF

6. A 23 years old lady has presented for the first time in your OPD. She has been diagnosed as stable severe mitral stenosis and mild mitral regurgitation. As per 2002 - 2003, WHO criteria for diagnosis of Rheumatic Heart Disease, she should fulfil following manifestations of Revised Jones Criteria :
 (1) One major manifestation and two minor manifestations
 (2) Two minor manifestations
 (3) One minor manifestation with supporting evidence of antecedent group A streptococcal infection
 (4) Does not require any other criteria

7. Following statements about carditis in Acute Rheumatic Fever (ARF) are true except :
- (1) Around 40 percent cases of ARF develop carditis
 - (2) About 66 percent of ARF patients with carditis develop Rheumatic Heart Disease on follow up
 - (3) Tricuspid Regurgitation is the commonest valvular lesion during ARF
 - (4) Pericarditis, Pericardial effusion and arrhythmias may also occur in rheumatic carditis
8. Following statements about Pathogenesis of Acute Rheumatic Fever are true except :
- (1) Pathologic hall mark of rheumatic carditis is Aschoff body
 - (2) Aschoff body comprises of perivascular infiltrates of large cells arranged in a rosette form around a vascular area of fibrinoid necrosis
 - (3) Aschoff bodies are usually seen in Acute Stage of Rheumatic carditis
 - (4) On gross examination, on opening of left atrium, one sees a thickened patch of tissue just above the base of posterior mitral leaflet termed as 'Mac Callum's patch'
9. Following statements in the setting of Acute Rheumatic Fever (ARF) are true except :
- (1) Polyarthrititis is the most common manifestation
 - (2) Subcutaneous nodules are present in 3-6 percent of cases
 - (3) Erythema marginatum is a macular, evanescent and pruritic rash mostly on trunk and arms but never on face
 - (4) Chorea may be the only manifestation of ARF
10. Following statements about diagnosis of Acute Rheumatic Fever are true except :
- (1) One must look for supportive evidence for antecedent Group A streptococci infection
 - (2) In about 80 percent of ARF patients, Anti-streptolysin O titres are raised
 - (3) AS O titres are at peak usually 3 months after streptococcal infection
 - (4) Anti-deoxyribonuclease β titre remains elevated longer than Anti-streptolysin O titres
11. Following statements about course and prognosis of Acute Rheumatic Fever are true except :
- (1) The course and ultimate prognosis of Acute Rheumatic Fever is usually directly related to the severity of polyarthrititis
 - (2) The course and prognosis also depends upon recurrence of rheumatic fever
 - (3) There is always a tendency to develop rheumatic fever with repeated group A streptococci infection
 - (4) There is a greater chance for recurrence in young children and in the first 3 years after the first attack

12. One of the following drug in following dosage is recommended for secondary prophylaxis for Acute Rheumatic Fever except :
- (1) Benzathine Penicillin 1.2 million units every 3 weeks (weight ≥ 30 mg)
 - (2) Penicillin V 500 mgm b.i.d daily
 - (3) Erythromycin stearate 250 mgm b.i.d. daily
 - (4) Sulfadiazine 1 gm/kg (0.5 gm/kg in children)
13. Following statements about Infective Endocarditis (IE) are true except :
- (1) IE is a microbial infection of the endothelial surface of the heart
 - (2) Infection may occur at the site of septal defect chordae tendinae, mural endocardium, heart valve leaflets
 - (3) Mural Endocardium is more commonly involved
 - (4) Prosthetic valve may provide a nidus for infection, as well as barrier to eradication
14. Following statements about Infective Endocarditis are true except :
- (1) Infective endocarditis usually occurs more frequently in men
 - (2) The age specific incidence of endocarditis increases progressively after 30 years of age
 - (3) Predisposing conditions cannot be identified in 25 to 45 percent of patients
 - (4) Among neonates, infective endocarditis typically involves the mitral valve of structurally normal hearts.
15. Commonest organism incriminated in native valve endocarditis in the age group of 2 months to 15 years is :
- | | |
|------------------|----------------------------|
| (1) Streptococci | (2) S. Aureus |
| (3) Enterococci | (4) Gram negative bacteria |
16. Following statements about Prosthetic Valve Endocarditis (PVE) are true except :
- (1) The risk of PVE is greatest during the initial 6 months after valve surgery
 - (2) During the initial months after valve implantation, bio prosthetic valves are at greater risk of infection than mechanical valve
 - (3) PVE represents 7 to 25 percent of all infective endocarditis cases
 - (4) PVE can be broadly divided into two groups based on the time of onset of infection after valve surgery - early and late
17. In the setting of Prosthetic valve endocarditis, within two months of surgery, commonest organism incriminated is :
- (1) Staphylococcus aureus
 - (2) Coagulase - negative staphylococci
 - (3) Gram negative bacilli - P. Aeruginosa
 - (4) Fungi - candida species
18. Of the following, commonest clinical sign of infective endocarditis is :
- | | |
|-------------------|----------------------------|
| (1) Fever | (2) Changing or new murmur |
| (3) Embolic Event | (4) Clubbing |

19. Following clinical features in infective endocarditis are due to Immune mediated injury :
- (1) Glomerulonephritis
 - (2) Osler's nodes
 - (3) Janeway lesions
 - (4) Roth's spots
20. Following statements about the cardiac manifestations of Infective Endocarditis are true except :
- (1) Murmur is present in about 80 - 85 percent of cases
 - (2) Congestive Heart failure develops in 30 - 40 percent of patients
 - (3) Heart failure due to mitral valve dysfunction progresses more rapidly than does that due to aortic valve dysfunction
 - (4) Embolic to a coronary artery occur in 2% of patients and may result in myocardial infarction
21. As per modified Duke Criteria of Infective Endocarditis, patient is said to suffering from 'Definite' Infective Endocarditis if he/she meets the following combinations of clinical criteria except :
- (1) Two major criteria
 - (2) One major and two minor criteria
 - (3) One major and three minor criteria
 - (4) Five minor criteria
22. Following statements about Infective Endocarditis (IE) are true except :
- (1) Systemic Emboli are among the most common clinical sequelae of IE
 - (2) Embolic often antedate diagnosis of IE
 - (3) Incidence of embolic events decreases promptly during administration of effective antibiotic therapy
 - (4) Embolic stroke syndromes, predominantly involving the anterior cerebral artery territory, occurs in 15 to 20 percent of patients with IE
23. Following statements about Fungal Infective Endocarditis are true except :
- (1) Is associated with high mortality (Survival Rate < 20%)
 - (2) Is associated with large bulky vegetations
 - (3) Candida and Aspergillus species are the most common causes
 - (4) Blood cultures are usually positive in case of Aspergillus whereas they are rarely positive with Candida.
24. In the setting of IE, following features suggest need of emergent (same day) surgery :
- (1) Acute aortic regurgitation plus preclosure of mitral valve
 - (2) Sinus of Valsalva abscess ruptured into right heart
 - (3) Rupture into pericardial sac
 - (4) Fungal Endocarditis

25. As per modified Duke criteria of Infective Endocarditis, following clinical criteria are considered as minor criteria except :
- (1) Predisposing heart condition or intravenous drug use
 - (2) Fever $\geq 38.^\circ\text{C}$
 - (3) Major Arterial Emboli
 - (4) Typical micro-organism for infective endocarditis grown from two separate blood cultures
26. Following statements are true except :
- (1) Minimum Inhibitory Concentration (MIC) of the antibiotic is the lowest concentration that inhibits growth of the causative organism
 - (2) Minimum Bactericidal Concentration (MBC) of the antibiotic is the lowest concentration that decreases a standard inoculum of organisms 99.9 percent during 48 hours
 - (3) For the vast majority of streptococci and staphylococci, the MIC and MBC of penicillins, cephalosporins or vancomycin are the same or differ only by a factor of two to four
 - (4) organisms for which MBC of these antibiotics is 10 fold or greater than MIC are occasionally encountered
27. In the setting of Infective Endocarditis, following statements about mycotic aneurysms are true except :
- (1) They result from septic embolization of vegetations to the arterial vasa vasorum or to the intraluminal space.
 - (2) Arterial branching points favour the impaction of emboli
 - (3) They occur more frequently in visceral arteries followed by intracranial arteries
 - (4) Intra-abdominal mycotic aneurysms are often asymptomatic until leakage or rupture occurs.
28. Following statements about mitral valve Annulus are true except :
- (1) Annulus is a saddle shaped structure
 - (2) Posteriorly it merges with aortic annulus while anteriorly there is a C shaped discrete fibrous annulus
 - (3) Normal diameter is about 2.5 - 3.5 cms
 - (4) Normal motion and contraction contribute to the normal mitral valve function
29. Following statements about Mitral Stenosis (MS) are true except :
- (1) The predominant cause of MS is rheumatic fever
 - (2) 25% of all patients with Rheumatic Heart Disease (RHD) have isolated MS
 - (3) 40% of all patients with RHD have combined MS and MR
 - (4) Multivalve involvement is seen in 38% of MS patients with the aortic valve affected in about 35% and the tricuspid valve in about 30%.

30. Following statements about the Pathophysiology of Mitral valve obstruction are true except :
- (1) The transvalvular pressure gradient for any given valve area is a function of the square of the transvalvular flow rate
 - (2) Doubling of flow rate doubles the pressures gradient
 - (3) Increase in left atrial pressure would cause increase in the pulmonary artery wedge pressure
 - (4) Increases in pulmonary artery wedge pressure would cause interstitial congestion and this presents as symptoms of dyspnea
31. Following statements about physical signs of mitral stenosis are true except :
- (1) Pulse is normal or low volume
 - (2) With severe pulmonary artery hypertension, right ventricle may form the apex
 - (3) First heart sound is loud except in calcific and nonpliable valve
 - (4) Severity of mitral stenosis is directly proportional to $A_2 - OS$ distance
32. Following statements about echocardiographic score in mitral stenosis, used to predict outcome of Mitral Balloon Valvuloplasty (BMV) are true except :
- (1) Echocardiographic score is based on valve thickness, calcification, mobility and subvalvular thickening
 - (2) Patients with an echocardiographic score of 8 or less have more favourable result from BMV than those with score higher than 8
 - (3) Patient is said to have Grade 3 Subvalvular Thickening, if thickening of the chordal structures extends upto one third of the chordal length.
 - (4) Patient is said to have grade 3 mobility, if the valve continues to move forward in diastole mainly from the base.
33. Following statements about Atrial Fibrillation (AF) in the setting of Mitral Stenosis are true except :
- (1) With increase in left atrial size, there are more chances of patient developing AF
 - (2) Initially, AF may be paroxysmal, but later it becomes persistent and then chronic
 - (3) Loss of Atrial contraction also contributes to decrease in mean left atrial pressure
 - (4) Incidence of thromboembolic complications in AF due to rheumatic mitral stenosis is 17 times more than that seen in lone AF
34. Following statements are true except :
- (1) Congenital Mitral Regurgitation may be due to cleft mitral leaflet
 - (2) Rheumatic involvement is the most important cause of mitral regurgitation in our country
 - (3) Myxomatous mitral valve is characterized by deposition of mucopolysaccharides in the spongiosa layer
 - (4) In idiopathic degeneration of chordae, usually anterior leaflets are involved and their rupture leads to mitral regurgitation

35. In compensated chronic mitral regurgitation, following statements are true except :
- (1) Left atrium is enlarged
 - (2) Left ventricle is enlarged
 - (3) Increased preload of left ventricle
 - (4) Increased after load of left ventricle
36. In compensated chronic severe mitral regurgitation, 2nd heart sound is :
- (1) Widely split
 - (2) Normal split
 - (3) Narrow split
 - (4) Reverse split
37. Following statements about Aortic Stenosis are true except :
- (1) Congenital bicuspid aortic valve is one of the common congenital abnormality - about 8 percent
 - (2) Congenital abnormalities of aortic valve may lead to unicuspid Aortic valve
 - (3) Degenerative aortic valve disease that is seen increasingly in elderly shares common pathogenesis with atherosclerosis
 - (4) Patient is often asymptomatic till the orifice size decreases from normal 3-4 cm² to 1.5 cm²
38. Following statements about physical signs in aortic stenosis are true except :
- (1) A grade I murmur in the absence of decompensation suggests mild lesion
 - (2) A grade IV murmur almost always suggests severe aortic stenosis
 - (3) In children and elderly, selective conduction of high frequency sounds to apical area may give to cooing murmur at apex
 - (4) An early peaking loud grade IV murmur is specific to severe aortic stenosis
39. Patient is said to be suffering from severe mitral regurgitation if he/she meets the following criteria except :
- (1) Regurgitant volume more than 60 ml per beat
 - (2) Regurgitant fraction more than 40 percent
 - (3) Effective regurgitant orifice more than 0.4 cm²
 - (4) Pulmonary vein systolic flow reversal
40. As per ACC/AHA guidelines for management of patients with severe aortic regurgitation, following are class I indications for Aortic Regurgitation except:
- (1) Symptomatic patients
 - (2) Asymptomatic patients with EF < 0.50 at rest
 - (3) Asymptomatic patients undergoing CABG or surgery on Aorta or heart valves
 - (4) Asymptomatic patients, Normal LV functions, EDD > 75 mm, ESD > 55 mm
41. Following statements about Pericardium are true except :
- (1) Pericardium consists of two layers
 - (2) Parietal pericardium thickness may be upto 2.5 to 3.0 mm
 - (3) The phrenic nerves lie over the parietal pericardium and supply most of it
 - (4) The normal intrapericardial pressure can vary from 5 to 10 mm of Hg

42. Following statements about electrocardiogram in acute pericarditis are true except :
- (1) Four stages of evolution of ECG changes may occur
 - (2) In stage I, there is ST segment elevation with concavity upwards
 - (3) In stage II, there is T wave inversion
 - (4) In stage IV, T wave normalizes
43. Following statements about size of the Pericardial Effusion(PE) are true except :
- (1) Small PE : Mostly seen in anterior part of the heart
 - (2) Moderate PE (100-500 ml) : Seen all around the heart, width 1.0 cm
 - (3) Large PE (> 500 ml) : More than 1 cm in width all around
 - (4) Tamponade - swinging motion of the heart, diastolic collapse of right ventricle and respiratory flow variation across the atrioventricular valves
44. Following statements about Pathophysiology of constrictive pericarditis are true except :
- (1) There is restriction of ventricular dilatation and diastolic filling of the ventricles
 - (2) There is dissociation of intracardiac and intrathoracic pressures
 - (3) Difference in diastolic pressure between the ventricles is more than 5 mm of Hg
 - (4) There is systemic and pulmonary venous congestion
45. Following are the features of Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) except :
- (1) It is marked by myocardial cell loss with partial or total replacement of RV muscle by adipose and fibrous tissue
 - (2) Clinical manifestations are seen in adolescence or early adulthood predominantly in males
 - (3) ECG shows inverted T waves in right precordial leads
 - (4) They develop reentrant ventricular tachyarrhythmias of RBBB configuration usually precipitated by exercise.
46. In constrictive pericarditis, following hemodynamic changes occur except :
- (1) Left ventricular pressure tracing shows square root sign
 - (2) Equalization of diastolic pressure in all 4 chambers
 - (3) Ventricular filling occurs only in early diastole
 - (4) Jugular venous pressure is decreased
47. Which of the following hemodynamic aspects of constrictive pericarditis is incorrect ?
- (1) There is dissociation of intracardiac and intrathoracic pressures
 - (2) There is elevation of intracardiac diastolic pressures
 - (3) Affects early filling phase of ventricles
 - (4) Causes equalization of diastolic pressures in all 4 chambers
48. The following are related to severity of mitral stenosis except :
- | | |
|-------------------------|--------------------------------|
| (1) Atrial fibrillation | (2) Length of diastolic murmur |
| (3) A2-OS interval | (4) Pulmonary hypertension |

49. Cardiac catheterization in rheumatic mitral regurgitation :
- Routine cardiac catheterization is mandatory before mitral valve replacement in all patients
 - Pre-operative coronary angiogram is mandatory before valve replacement in those with risk factors
 - LV angiogram helps to assess LV function and regional wall motion abnormalities
 - Quantification of mitral regurgitation by catheterization is the gold standard
- Which of the above is **correct** ?
- (a) + (b) + (c)
 - (b) + (c) + (d)
 - (a) + (d)
 - (b) + (c)
50. For assessing severity of aortic stenosis clinically, which of the following is less reliable ?
- Length of systolic murmur
 - Intensity of systolic murmur
 - Late peaking of murmur
 - S1-ejection click interval
51. The following echocardiographic features are suggestive of severe mitral regurgitation except :
- Pulmonary vein systolic flow reversal
 - Effective regurgitant orifice area more than 0.3 sq. cms
 - Regurgitant fraction more than 55%
 - Regurgitation jet reaches posterior wall of left atrium
52. Which of the following statements about infective endocarditis is incorrect ?
- More common in men
 - More common in older persons
 - Rheumatic valvular disease is a common predisposing lesion
 - Among congenital heart disease, it is more common in ASD
53. Which of the following regarding subcutaneous nodules in rheumatic fever is correct ?
- Painful and tender
 - Freely movable
 - Occur on extensor surface of elbows, knees and spine
 - Occur in 10 - 25% of case
- Which of the above is **correct** ?
- (a) + (c)
 - (b) + (d)
 - (b) + (c)
 - (c) + (d)
54. Pathogenesis of Acute Rheumatic Fever - which of the following is wrong ?
- Abnormal immune response of heart
 - Toxic effect of extracellular toxin of Group A Streptococci
 - Streptococcal m Protein cross reacts with human cardiac myosin
 - Streptococcal antibodies cross react with caudate nucleus

55. In Rheumatic Fever, which of the following statements is **not** correct ?
- (1) Severity of carditis determines prognosis
 - (2) Recurrence of rheumatic fever is common in children
 - (3) If Carditis occurs in first attack chance of carditis recurrence is high
 - (4) Children with no carditis in first attack will never have cardiac murmur in long term follow up
56. Prevention of Rheumatic Fever :
- (a) Prompt treatment of pharyngitis with penicillin
 - (b) Injectable penicillin is inferior to oral penicillin
 - (c) Those with carditis should have prophylaxis up to 40 years of age
 - (d) Vaccines are routinely recommended for prophylaxis
- Which of the above is correct ?
- (1) (a) + (c)
 - (2) (b) + (d)
 - (3) (a) + (b) + (c)
 - (4) (b) + (c) + (d)
57. Which of the following statements regarding clinical features of acute rheumatic fever is wrong ?
- (1) Subcutaneous nodules are always associated with carditis
 - (2) Diagnosis requires two major or one major and two minor criteria
 - (3) Supportive evidence of streptococcal infection is always required in all types of presentation
 - (4) Valvulitis produces Carey coombs murmur
58. Which of the following regarding ASO titer is **not** correct ?
- (1) Two-fold rise in sample taken 2-4 weeks interval is significant
 - (2) Not useful for diagnosis for chorea
 - (3) Return to normal levels before antideoxyribonuclease B Levels
 - (4) More than 250 Todd units significant in children
59. Which of the following regarding clinical features of Mitral stenosis is incorrect ?
- (1) Chest pain is due to low stroke volume
 - (2) Pulmonary infarct can cause pleuritic pain
 - (3) Onset of atrial fibrillation may precipitate pulmonary edema
 - (4) Syncope is unusual
60. In Echo Doppler assessment of Mitral Stenosis, which of the following statements is wrong ?
- (1) In atrial fibrillation, average of valve gradient in 5 cycles to be taken
 - (2) Valve area calculated by pressure half time is fallacious in coexistent atrial septal defect
 - (3) Associated mitral regurgitation does not affect continuity equation
 - (4) Transvalvular gradient will be falsely low in bradycardia

61. Renal dysfunction in infective endocarditis is caused by the following :
- (1) Immune complex glomerulonephritis
 - (2) Aminoglycoside induced injury
 - (3) LV dysfunction
 - (4) All of the above
62. Which of the following regarding neonatal infective endocarditis is incorrect ?
- (1) Involves tricuspid valve
 - (2) There is often structural abnormality of heart
 - (3) Carries high mortality
 - (4) Consequence of infected vascular access catheters
63. Chemoprophylaxis against infective endocarditis is indicated in the following conditions except :
- (1) Dental scaling
 - (2) Tonsillectomy
 - (3) Vaginal hysterectomy
 - (4) Cystoscopy
64. As per Duke's criteria, infective endocarditis is said to be possible when :
- (1) Two major criteria
 - (2) One major + one minor criteria
 - (3) Five minor criteria
 - (4) None of the above
65. Which of the following is incorrect regarding Mitral Valve ?
- (1) Mitral annulus posteriorly merges with aortic annulus
 - (2) Posterior leaflet occupies 2/3rd of annulus
 - (3) Posterior leaflets has three scallops
 - (4) Primary chordae are twelve in number
66. Echo in infective endocarditis :
- (a) TEE has higher sensitivity and specificity for detecting vegetation
 - (b) TEE has better in PVE
 - (c) Vegetations show independent mobility
 - (d) TEE is more useful to diagnose myocardial abscess
- Which of the above is correct ?
- (1) (a) + (c)
 - (2) (b) + (d)
 - (3) (a) + (b)
 - (4) (b) + (c)
67. Following regimens can be tried in culture negative endocarditis except :
- (1) Ampicillin + Gentamycin
 - (2) Ceftriaxone + Gentamycin
 - (3) Vancomycin to be added if prosthetic valve is present
 - (4) Rifampicin + Gentamycin

68. Regarding mitral stenosis, which of the following statements, is wrong ?
- (1) QRS axis of less than 60 suggest severe mitral stenosis
 - (2) Right axis deviation indicates Pulmonary hypertension
 - (3) R/S ratio of more than 1 and V1 indicates pulmonary hypertension
 - (4) P Mitrale is the most common ECG finding
69. The following are immunological phenomenon of infective endocarditis except :
- (1) Janeway lesion
 - (2) Osler's nodes
 - (3) Roth's spots
 - (4) Rheumatoid factor
70. Which of the following statements about clinical features of infective endocarditis is incorrect ?
- (1) Fever and new murmur or changes in pre-existing murmur is common
 - (2) Worsening cardiac failure due to valve destruction
 - (3) Roth Spots are macular non tender lesions in hand
 - (4) Worsening of renal function is due to the disease as well as drugs
71. Treatment of Rheumatic fever is :
- (a) Penicillin need not be given if throat culture does not grow streptococci
 - (b) Carditis with cardiac enlargement does not require bed rest
 - (c) Recommended dose of Aspirin is 100 mg/kg/day
 - (d) While tapering steroids salicylate is to be added
- Which of the above are correct ?
- (1) (a) + (c)
 - (2) (b) + (d)
 - (3) (a) + (b)
 - (4) (c) + (d)
72. A 35 years old female presents with repeated episodes of ventricular tachycardia. Gives history of flu like illness one week ago. ECG shows left bundle branch block with diffuse ST-T changes. Echocardiogram shows mild LV dilatation with severe LV dysfunction. The likely diagnosis is :
- (1) Restrictive cardiomyopathy
 - (2) Myocarditis
 - (3) Dilated cardiomyopathy
 - (4) All of the above
73. Which of the following regarding clinical aspect of rheumatic fever is correct ?
- (1) Rheumatic fever produces only pericarditis
 - (2) Mitral stenosis can occur in acute stage
 - (3) Aschoff bodies are characteristic of acute carditis
 - (4) Mac Callum's patch occurs in left atrium

74. A 40 years male presented with slowly progressive exertional breathlessness and ankle edema of 2 months duration. Neck veins are distended. Echocardiogram showed normal sized LV with EF of 60% with dilated of both atria. Mild mitral and tricuspid regurgitation. The likely diagnosis is :
- (1) Dilated cardiomyopathy
 - (2) Restrictive cardiomyopathy
 - (3) Hypertrophic cardiomyopathy
 - (4) Myocarditis
75. Which of the following is incorrect regarding systolic murmur of HOCM ?
- (1) Increase by valsalva manoeuvre
 - (2) Increase by amyl nitrate inhalation
 - (3) Decrease on standing
 - (4) Decrease on elevation of legs
76. A 50 years old female has easy fatigability, significant weight loss and exertional dyspnoea of 4 months. On examination, she has small lump in her left breast, jugular venous pressure of 10 cm above sterna angle and no cardiac murmurs. Chest X-ray shows cardiomegaly with normal pulmonary parenchyma. Echocardiogram showed moderate pericardial effusion. The likely diagnosis is :
- (1) Mesothelioma
 - (2) Carcinoma of breast with metastasis
 - (3) Carcinoma uterus with metastasis
 - (4) Viral pericarditis
77. Which of the following regarding treatment of HOCM is wrong ?
- (1) DDD pacing is indicated when there is severe bradycardia due to beta-blockers
 - (2) In septal ablation, alcohol is percutaneously injected into first septal branch of LAD
 - (3) Pacemaker implantation is routinely done after septal ablation
 - (4) Septal myectomy is done by trans aortic approach
78. Which of the following is incorrect regarding rheumatic valvular heart disease ?
- (1) Involvement of pulmonary valve is unusual
 - (2) Commissural fusion and subvalvular apparatus involvement is common
 - (3) Valvular regurgitation is uncommon in acute phase
 - (4) Stenotic complications occur in < 10 years in Indians
79. Which of the following statements about investigations in acute rheumatic fever is incorrect ?
- (1) Both ESR and CRP are elevated
 - (2) ESR is more useful in follow up
 - (3) ASO is elevated in chorea
 - (4) PR prolongation is a feature of carditis

80. The following are poor prognostic indications of HOCM except :

- (1) Family history of sudden death
- (2) LV outflow gradient of > 30 mm at rest
- (3) BP fall with exercise
- (4) Supraventricular tachycardia on Holter

81. Rheumatic arthritis :

- (a) Is typically fleeting in character
- (b) Does not involve cervical spine
- (c) Usually does not extend beyond 6 weeks
- (d) Affects small joints of hands

Which of the above statements are correct ?

- (1) (a) + (c) (2) (b) + (d) (3) (a) + (b) + (c) (4) (b) + (c) + (d)

82. Which of the following regarding pathophysiology of infective endocarditis is incorrect ?

- (1) Vegetations occurs at the site of jet impact on the endometrium
- (2) Embolic complications are unusual
- (3) Immunological complications are common
- (4) Treatment with antibiotics reduces the incidences of embolism

83. Which of the following is incorrect regarding Sydenham/s chorea ?

- (1) Occurs many weeks after streptococcal sorethroat
- (2) Manifest as quasipurposive involuntary movements
- (3) Involves face and extremities
- (4) Elevated serum ASO titer is diagnostic

84. Which of the following regarding Rheumatic Carditis is incorrect ?

- (1) Is always pancarditis
- (2) Established valvular heart disease develop in 2/3 of case
- (3) Aortic regurgitation is more common than mitral regurgitation
- (4) Apical mid diastolic murmur can occur in acute phase

85. Which of the following about Pericardial rub is **not** correct ?
- (1) Is a phasic scratching sound
 - (2) Increase on inspiration
 - (3) Always has three components
 - (4) Best audible in lower left parasternal region
86. The following indicate functional MR except :
- (1) Mitral regurgitation jet is eccentric
 - (2) Global or regional LV dysfunction is present
 - (3) Apical displacement of AML with tenting
 - (4) Mitral leaflets are not thickened
87. Which of the following about cardiac tamponade is incorrect ?
- (1) Will result if 200 ml of pericardial fluid accumulates rapidly
 - (2) Increased JVP with prominent "Y" descent
 - (3) Pulsus paradoxus is characteristic
 - (4) Echocardiography shows early diastolic RV collapse
88. Which of the following statements regarding Echo features of cardiac tamponade is incorrect ?
- (1) Less than 50% inspiratory collapse of dilated inferior vena cava
 - (2) Increase by more than 25% of mitral E velocity during inspiration
 - (3) Increase by more than 25% of tricuspid E velocity during inspiration
 - (4) Right ventricular diastolic collapse
89. Which of the following facts about pericardium is wrong ?
- (1) Receives arterial supply from internal mammary artery
 - (2) Phrenic nerve supplies visceral pericardium
 - (3) Visceral pericardium drains to trachea bronchial lymphnodes
 - (4) Prevents acute cavity dilatation
90. Which of the following is not true regarding Rheumatic Fever ?
- (1) Immunological mediated connective tissue disorder following infection of throat by Group A Streptococci
 - (2) It licks the heart and bites the joint in younger individuals
 - (3) Maximum incidences is in the age group of 5-15 years
 - (4) There is resurgence of rheumatic fever due to increased virulence of streptococci.
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