Cardio-vascular surgery- test 6

1. Which of the following statements concerning the pericardium is incorrect?:

A) The pericardium consists of two layers;
B) The serous pericardium has two layers: (visceral and parietal);
C) Approximately 200-500 mL of pericardial fluid usually lies within the pericardial space;
D) The serous pericardial layers are lined by mesothelial cells which secrete and resorb pericardial fluid

2. Female patient, taking Warfarin after surgical implantation of mechanic heart valve, has complains of swelling of her leg below the knee with bluish discoloration. What kind of lab-test you should request:

A) fibrinogen
B) D-Dimers
C) INR
D) aPTT

3. An elderly patient is admitted to A&E with severe chest pain, irradiation to the back, sudden onset during an episode of high blood pressure. Upon examination you notice diminished pulses on right radial and ulnar arteries, the blood pressure is 130/85mmHg at right arm; 180/105mmHg at left arm. The most likely diagnosis is:

A) acute myocardial infarction
B) thromboembolism of right upper extremity
C) aortic dissection
D) right palmar arch thrombosis

4. Which of the following statements concerning the anatomy of the left internal mammary/thoracic artery (LIMA/LITA) is incorrect?:

A)The left internal mammary artery originates from the descending thoracic aorta;
B)The left internal mammary artery originates from the first part of the subclavian artery medial to scalenus anterior muscle;
C)The left internal mammary artery courses down the posterior aspect of the chest wall approx. 2 cm. lateral to the left sternal edge with corresponding left internal mammary veins on either side;
D)The left internal mammary artery terminates around the 6-th intercostal space

5. The most common cyanotic congenital heart disease found in children surviving to 1 year and accounting for about 4-6 % of all congenital heart diseases is:

A)Transposition of the great arteries (TGA);
B)Tetralogy of Fallot (ToF);
C)Total anomalous pulmonary venous connection (TAPVC);
D)Hypoplastic left heart syndrome (HLHS)

6. The most common cause of severe cyanosis in the newborn, which can progress to death if left untreated, is related to:

A)Transposition of the great arteries (TGA);
B)Tetralogy of Fallot (ToF);
C)Eisenmenger syndrome;
D)Coarctation of the aorta (CoA)

7. The most common (70-80%) type of a ventricular septal defect (VSD) is:

A)Infundibular or subarterial (sub-aortic & sub-pulmonary);
B)Perimembranous or conoventricular;
C)AV-canal type or inlet;
D)Muscular type and “Swiss cheese” defect

8. The most common approach for performing coronary artery bypass grafting (CABG) is:
A)Left anterolateral thoracotomy;
B)Ministernotomy;
C)Median sternotomy;
D)Subxiphoid approach

9. What are the principles of treating angina pectoris?:
A)Conservative (cessation of smoking, healthy diet, blood pressure control, diabetic control);
B)Medical (antiplatelet, statin, nitrate, beta-blockers, calcium channel blockers);
C)Percutaneous coronary intervention (PCI) - balloon angioplasty, bare metal stent, drug-eluting stent;
D)Surgery - coronary artery bypass grafting (CABG);
E)A, B, C & D - correct;
F)Only C & D – correct

10. Which of the following statements concerning myocardial ischaemia is not correct?:
A) Myocardial ischaemia represents an imbalance between myocardial oxygen supply and demand;
B) Myocardial ischaemia represents ischaemia-induced cardiomyocyte loss (necrosis) and is caused by coronary artery occlusion;
C) Acute myocardial ischaemia leads to acute coronary syndrome which represents a group of clinical conditions;
D) Myocardial ischaemia causes angina pectoris

11. The prime objective of coronary artery bypass grafting (CABG) is to obtain complete revascularization by bypassing all severe stenoses (at least 50% diameter reduction) in all coronary arterial trunks and branches having diameter of about 1 mm. or more.
A) Correct;
B) Incorrect

12. Patients with cardiac tamponade are best managed:
a) By pericardiocentesis followed by definitive thoracotomy if necessary
b) By pericardiocentesis only
c) By open thoracotomy and cardiorrhaphy
d) By thoracotomy, only if blood loss is excessive

13. The most common valvular defect resulting from rheumatic fever is:
a) Mitral stenosis
b) Mitral insufficiency
c) Aortic stenosis
d) Aortic insufficiency

14. Which of the following statements is TRUE regarding myxoma morphology?

a) These tumors are most commonly found in the left atrium
b) Myxomas have a characteristically firm texture and rarely embolize
c) Myxomas usually are attached to the free atrial or ventricular wall
d) There is no malignant potential

15. Which of the following statements is true regarding the Kartagener's syndrome?
a) Situs inversus, bronchicetasis and pansinusitis
b) Situs inversus of the lungs with levocardia
c) Splenic agenesis syndrome with levocardia
d) Anomalous right pulmonary artery and bilobation of the lungs

16. The combination of right heart failure, elevated venous pressure and a quiet heart is known as:
a) Whipple's triad
b) Saint's triad
c) Beck's triad
d) Murphy's sign

17. Which of the following statements regarding acute ascending aortic dissection is correct?
a) Hospital mortality for immediate surgical treatment is appreciably lower than that for aggressive medical management.
b) The disorder can be readily differentiated from acute myocardial infarction.
c) Pericardial tamponade is the most common cause of death.
d) All of the above

18. Risk factors for aortic dissection include:
a)Hypertension.
b)Ischaemic heart disease.
c)Pregnancy.
d)hypopituitarism.

19. Which from the following conditions leads to severe aortic valve insufficiency:
a) Aortic dissection
b) Pulmonary embolism
c) Myocardial infarction
d) Syphilitic aortitis with dilatation of the ascending aorta

20.Gold standard in diagnosis coronary artery disease is
a) Coronarography
b) Contrast-enhanced computerized tomography (CECT)
c) Magnetic resonance imaging (MRI)
d) ECG

21.True arterial aneurysms consist of:
a) All layers of vascular wall
b) the endothelium layer only
c) the adventitial layer only
d) no layers of vascular wall

22. Intermittent claudication is a symptom of:
a) acute limb ischemia
b) peripheral arterial disease
c) ascending phlebitis
d) ruptured peripheral vessel aneurysm

23. Upon physical examination of a patient with acute limb ischemia the clinical findings are:
a) warm, swollen extremity
b) livedo reticularis
c) absence of pulse
d) ankylosis with limited movement of the affected extremity

24. Arterial thromboembolism is caused by:
a) Left ventricular dyskinesia
b) atrial fibrillation
c) aneurysms of proximal vessels
d) all of the above is true

25. In order to perform endovascular treatment, the following is used:
a) specially designed flexible endoscope
b) vessel puncture access under x-ray imaging
c) separate surgical incisions
d) all of the above

26. ABI is an index, calculated upon the ratio of:
a) the mean arterial blood pressure, measured at the brachial artery and at ankle arteries
b) the systolic arterial blood pressure, measured at the brachial artery and at ankle arteries
c) the systolic arterial blood pressure, measured at the femoral and axillary arteries
d) percentage of stenosis of the internal carotid artery

27. Critical limb ischemia is present in patients with:
a) ABI less than 0.4
b) presence of wounds
c) duration of symptoms over 14 days
d) all of the above

28. The highest frequency of all peripheral arteries has aneurysms of:
a) splenic artery
b) renal artery
c) femoral artery
d) popliteal artery

29. In patients with Marphan`s syndrome a predisposition exists for:
a) deep venous thrombosis
b) recurring arterial embolisation
c) development of aortic and arterial aneurysms
d) all of the above

30. In a patient with accidently discovered asymptomatic aneurysm of the abdominal aorta with dia. 43mm without aortic branches inclusion, your recommendation will be for:
a) scheduled open aortic repair or endovascular repair /EVAR/
b) urgent open aortic repair or endovascular repair /EVAR/
c) Annual follow-up with ultrasound/ CT imaging, blood pressure and lipid profile monitoring
d) laboratory testing for congenital coagulation defects

31. Isolated left-sided varicose veins in young adults is usually associated with:
a) Paget – Schroetter` syndrome
b) Raynaud` syndrome
c) May Thurner syndrome
d) Marphan` syndrome

32. Paget Schroetter syndrome is:
a) compression of the left iliac vein by the right iliac artery
b) compression of popliteal artery in the popliteal fossa
c) thrombosis of subclavian / axillary vein
d) nonhealing wounds bellow the knee.

33. Management of patients with Raynaud syndrome includes:
a) vascular surgical intervention
b) percutaneous transluminal angioplasty
c) recommendation to avoid provoking stimulus
d) restriction of strong alcoholic beverages daily intake

34. For the diagnosis of peripheral arterial and venous diseases the following are NOT used:
a) conventional angiography, CT angiography, MRI- angiography
b) Doppler ultrasound examination, pletismography, rheography
c) fluoroscopy, orthopantomography, irigography
d) invasive and non-invasive blood pressure monitoring, ABI measurement, measurement of TcpO2

35. The surgical management of patients with peripheral arterial disease does NOT include:
a) balloon-catheter embolectomy
b) autovenous or synthetic graft bypass
c) endarteriectomy of atherosclerotic lesion
d) patch-plasty

36. Implantation of inferior vena cava filter is indicated in patients with:
a) atrial fibrillation and several recurrences of arterial embolization
b) ascending varicophlebitis of great saphenous vein
c) known congenital or acquired coagulation defects
d) recurrent pulmonary embolism with a source below the level of the renal veins

37. Homans' sign is pathognomonic for:
a) cerebral insultus
b)deep vein thrombosis

c)arterial embolism
d) pumonary embolism

38. Thoracic outlet syndrome (TOS) referes to:
a)compression of the nerves of upper extremity
b)compression of the arteries of the upper extremity
c) Both A and B
d)None of the above

39. Thrombophilia is:
a) clinical form of Raynold's disease
b) abnormality of blood coagulation that increases the risk of thrombosis
c) following to limb ischemia
d) none of the above

40. Which of the following drugs should be discontinued when an operation is planned?
a) Beta blockers
b) Thyroid hormone replacement therapy
c) Antiplatelet drugs
d) Steroids

41. Tourniquet is:
a) a compression stocking
b) a stycky gauze bandage to cover a wound
c) a tightly tied band which goes around a limb to restrict blood loss
d) none of the above

42. Arterial bleeding is:
a) usually dark red/maroon in color
b) is usually easy to control
c) requiring a compression appled proximally to the wound
d) none of the above

43. "Subclavian steal" syndrome have the following signs:
a) Disabling neurologic symptoms
b) Reversed flow in the ipsilateral vertebral artery
c) Upper extremity claudication
d) Increased systolic blood pressure in the ipsilateral arm

44. The classic treatment of DVT is:
a) Antiplatelet therapy and increased activity
b) Anticoagulant therapy and ambulation with elastic compression
c) Diuretics and fluid balance monitoring
d) Beta blockers and ECG-control

45. The most common complication of DVT is:
a) Miocardial infarction
b) Pneumonia
c) Pulmonary embolism
d) None of the above

46. Which of the following is an edovascular procedure ?
a) stripping
b) endovenous laser ablation
c) phlebocutaneoraphia
d) crossectomy

47. What is the definition of varicose veins?
a) inflamated veins
b) veins after a punction for systematic therapy
c) abnormally dilated, localised and lengthened veins prominent to the skin
d) the veins situated in the abdomen

48. What is the physiological direction of lower extremity vein valves?
a) caudal for the deep vein system
b) cranial for the supeficial vein system
c) from deep to superficial for the perforator veins
d) caudal for the superficial vein system

49. How do you interpret an Ankle-Brachial Pressure Index (ABPI) result of : 1,0?
a) critical limb ischaemia
b) normal
c) calcified vessels
d) impossible result - probably a laboratory error

50.The aortic arch has:
a) no branches
b) two main branches
c) three main branches
d) seven main branches

44-50 points – 6
39-44 points – 5
32-35 points – 4
30-32 points – 3
< 30 points – 2