# TEST BANK

Doctor 2019

# **SUBJECT:**

CARDIOTHORACIC SURGERY - FINAL THEORY COLLECTION

# **COLLECTED BY :**

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# 6th year final exam - 2018

1. True about Dominant Right coronary artery:

answer: gives PDA branch and supplies AV node

2. requires immediate intervention?

answer: transposition of great vessel

3. Fatal condition?

answer: left coronary from pulmonary

4. PDA dependent heart defect?

answer: PGE1

#### explanation:

Patent ductus arteriosus (PDA) is a condition where the opening between the two major blood vessels leading from the heart fail to close after birth. PGE1 is a substance produced by the ductus that keeps it open.

- 5. Which of the following is the most appropriate statement regarding chest trauma:
  - a) 25% of trauma mortalities are related to the chest.
  - b) most patients with chest trauma will end up needing a thoracotomy.
  - c) tracheal and bronchial trauma are repaired via a median sternotomy.
  - d) continuous bleeding of 50 ml/hr requires a thoracotomy.

answer: A

#### Explanation:

some patients with chest trauma may require a thoracotomy, it is not true that most will need one. Tracheal and bronchial trauma may be repaired through a median sternotomy, but this is not always the case sometimes we can treat it conservatively. Continuous bleeding of 50ml/hr may indicate the need for a thoracotomy, but this would depend on the particular circumstances of the case.

- 6. A patient undergoes left pneumonectomy for lung ca. 5 days after the surgery, he has fever and cough with copious amount of sputum. CXR showed air fluid level in the post-pneumonectomy space. What is the best next step?
  - a) Pleural fluid analysis and culture
  - b) Chest drainage
  - c) Thoracotomy
  - d) Sputum cultures and start antibiotics

answer: A

#### Explanation:

A: bcz After CXR we have to determine the cause of air fluid level to guide us for further management , B: is necessary but not the first step . C: invasive procedure ( not preferable after major sugery ) D: fluid analysis before start abx.

7. All are causes of persistent decrease in CO after cardiac surgery except:

- a) poor myocardial function
- b) cardiac tamponade
- c) Hypovolemia
- d) Bleeding
- e) Alkalosis

answer: E

#### **EXPLAINATION:**

Hypovolemia and bleeding causes low CO by decreasing preload . cardiac tamponade is a decreased in diastolic filling, which leads to a decreased cardiac output. Poor cardiac function means decrease contractility then decrease CO .

- 8. acute lower limb ischemia (The embolus was in the common femoral artery and the patient presented with weak sensation of 5 hour-duration.) best management:
  - a) IV heparin
  - b) Embolectomy
  - c) Aorto-femoral bypass
  - d) femero-femoral bypass

answer: B

#### Explanation:

First choice of treatment is embolectomy then use IV heparin as adjunct to prevent another clot formation . bypass used in case of fully blocked artery not in case on embolus

#### 9. PVD ??

- a) most have intermittent claudication
- b) asx have same survival rate as general population
- c) rest pain and intermittent claudication have different natural hx
- d) Normal ABI excludes significant disease

answer: C

### 10. Wrong about DVT:

- a) pt needs admission before starting the treatment
- b) pt may have PE without any symptoms
- c) It's important to assess whether it was provoked orUnprovoked
- d) Level of DVT affects your management
- e) You should not delay treatment till you do the u/s

answer : A + E

#### Explanation:

We can discharge pt to home on NOAC if DVT is confirmed . but whem PE is confirmed we have to admit pt. in addition to that we have to do images before start treatment  $\frac{1}{2}$  when  $\frac{1}{2}$  with  $\frac{1}{2}$  where  $\frac{1}{2}$  is confirmed we have to admit pt. in addition to that we have to do images before start treatment  $\frac{1}{2}$  when  $\frac{1}{2}$  is confirmed we have to admit pt. in addition to that we have to do images before start treatment  $\frac{1}{2}$  is confirmed.

#### 11. What is true about fetal circulation?:

- a) Functional closure of foramen ovale occurs within 24hrs
- b) Ductus arteriosus continues to shunt blood from Rtto Lt after birth
- c) Umbilical artery is a branch of common iliac artery (it's a branch of internal iliac)
- d) the pulmonary artery resistance decreases after closure of the ductus arteriosus
- e) Low O2 tension is associated with closure of PDA

answer: D

- 12. A patient presenting with signs and sx mostly consistent with acute mesenteric ischemia. ABGs: pH 7.32, HCO3 14, pCO2 What is the acid-base disorder?
  - answer : Metabolic acidosis with respiratory compensation في نقص بمعطيات السؤال
- 13. There was a question about lower limb amputation but I can't remember the details. answer: start rehabilitation as soon as possible

# 4th year final exam - 2018

1. Most common site of venous ulcer:

Answer: lower third of the leg and ankle

2. Exercise effect in PAD:

answer: improves walking distance

3. Not used for AAA repair:

answer: Axillo-bifemoral bypass

4. Cause of early cynanosis:

answer: Transposition of the great vessels

5. Not in TOF:

answer: ASD

6. Indication for CABG:

answer: Patient with unstable angina, three-vessel disease, EF = 35 %

7. MI with occlusion in LCX artery , pt has left dominant circulation , which parts will be infracted :

answer: Left lateral ventricle and posterior interventricular septum

8. False about lymphadema:

answer: lymphedema praecox is primary and lymphedema tarda is secondary (both of them are primary)

9. False about pneumothorax:

answer: tension pneumothorax is diagnosed by CXR

10. Which of the following is associated with the highest relative risk of developing DVT:

answer: Antiphospholipid syndrome (The other choice were heterozygous factor V leiden, prothrombin mutations, heterozygotes protein C deficiency)

11. Question about pancost tumor:

answer: 2/3 of the cases are associated with squamous cell carcinoma

12. Which of the following is false intermittent claudication:

answer: becomes better at Night

# 4th year final exam - 2016

## 1. Most common congenital heart defect:

answer: Membranous VSD

2. Closure of foramen primum by union of: -

answer: Septum primum with AV cushions

- 3. Wrong about CHD:
  - a) In TOF: VSD and RVH
  - b) In TOF: pulmonary artery stenosis and overridingaorta.
  - c) TOF is due to a orticopulmonary membrane defect\*?? (It is due to anterior and superior deviation of the outlet septum.

answer : C

- 4. Most common cause of death at site of accident is:
  - a) Vascular injury
  - b) Thoracic injury
  - c) CNS injury

answer: A

- 5. Which factor is the most associated with symptomatic PVD:
  - a) HTN
  - b) DM

answer: B

- 6. Sepsis with organ failure and persistent hypotension is the definition of:
  - a) Septic shock
  - b) SIRS
  - c) Severe sepsis
  - d) MODS

answer: A

- 7. Not part of the SIRS criteria:
  - a) Temperature < 36
  - b) HR >90
  - c) WBC > 12000 or < 4000
  - d) RR>8 or PaCO2 >23mmHg
  - e) Cell bands > 10%

answer: D

8. Patient lost 1700 ml of blood:

answer: Class III shock (lost 30 - 40 % of blood volume)

- 9. Pt has inappropriate words, open eyes in response to painful stimulus, flex limbs in response to painful stimulus. Find his GCS:
  - a) 9
  - b) 8
  - c) 7

answer: A

#### 10. P50 for a male with normal [Hb]:

- a) 15 mmHg
- b) 25 mmgh
- c) 35 mmgh
- d) 40 mmgh

answer:B

#### 11. Wrong about compartment syndrome:

- a) Fasciotomy of all affected compartments
- b) Absent pulse is an early sign

answer:B

#### Explanation:

Absent of pulse : late sign

### 12. Female with DVT. Wrong about treatment:

- a) admission
- b) she may have PE without signs
- c) level of DVT determination would affect the management
- d) need to determine whether it is provoked or unprovoked
- e) good treatment reduce recurrence and post thrombotic syndrome

answer :A

## 13. wrong about critical limb ischemia

- a) mostly are revascularized
- b) worse prognosis than intermittent claudication
- c) amputation is occasionally the only choice
- d) Majority ends with amputation, or become severely diseased in 12 months follow up

answer:D

# 14. Clinical picture of pneumothorax (RTA, SOB, patent airway, hyper resonance and decreased breath sounds on right). What is the most appropriate next step?

- a) Needle thoracotomy
- b) Intubation and ventilation
- c) IV access
- d) CXR
- e) Lavage

answer: A

### 15. most malignant feature in lung cancer:

- a) no change on CXR after 5 months
- b) speculated appearance

answer: B

### 16. serous pleural effusion:-

answer: congestive heart failure

#### 17. most common lung cancer:

- a) metastases
- b) small cell carcinoma in smokers
- c) squamous cell carcinoma in smokers
- d) bronchogenic adenoma
- e) peripheral adenocarcinomas in non-smokers

answer: E

## 18. the complication with worst prognosis of aortic stenosis:

- a) congestive heart failure
- b) syncope
- c) angina

answer : A

# 19. Trauma patient presented to the ER first step?

answer: Secure airways

# 6th year final exam - 2015 & others

- 1. Which of the following has the greatest impact on the physiology of tetralogy of Fallot?
  - a) The size of the ASD.
  - b) The size of the VSD.
  - c) The degree of pulmonary stenosis.
  - d) The amount of aortic overriding.

answer: C

- 2. The congenital coronary lesion most likely to cause death in infancy is:
  - a) Coronary artery fistula.
  - b) Origin of the left coronary artery from the pulmonary artery.
  - c) Origin of the right coronary artery from the pulmonary artery.
  - d) Congenital coronary aneurysm..

answer:B

- 3. Which of the following are the most frequent complications of intra-aortic balloon counter pulsation?
  - a) Stroke.
  - b) Limb ischemia.
  - c) Arrhythmias.
  - d) Aortic thrombosis

answer:B

- 4. The atrial septal defect (ASD) most commonly associated with partial anomalous pulmonary venous return (PAPVR) is:
  - a) Sinus venosus defect.
  - b) Ostium primum defect.
  - c) Complete atrioventricular (AV) canal defect.
  - d) Coronary sinus defect.

answer: A

- 5. . A 55-year-old woman gives a history of tiredness, aching, and a feeling of heaviness in the left lower leg for the past 3 months. These symptoms are relieved by leg elevation. She is also awakened frequently by calf and foot cramping, which is relieved by leg elevation, walking, or massage. On physical examination there are superficial varicosities, nonpitting edema, and a slightly painful, 2 cm. diameter superficial ulcer 5 cm. above and behind the left medial malleolus. What is the most appropriate diagnosis?
  - a) Isolated symptomatic varicose veins.
  - b) Superficial lymphatic obstruction.
  - c) Deep venous insufficiency
  - d) Arterial insufficiency
  - e) E. Incompetent perforating veins

answer: C

- 6. phlegmasia alba dolens, false:
  - a) require treatment with LMWH
  - b) absent distal pulses
  - c) limb is blue in color

answer:C

7. Revasculirization surgery is indicated in all of the following cases except:
a) Claudication
b) ischemic neuropathy
c) rest pain
d) ulcer
e) gangrene
answer : B
8. Which is most lethal coronary anomaly: - left main arising from pulmonary artery (alkapa)
9. Most prognostic in TOF: - degree of pulmonary stenosis
10. Most likely ASD type with partial anomalous pulmonary venous return:
a) coronary sinus venous
b) septum secondum
c) septum premium
d) AV canal malformation
answer:A
11. Ejection fraction is defined as: - Stroke volume ratio to end diastolic volume
12. Most likely sign indicating pneumothorax:
a) weak lung sounds
b) dull percussion note
c) shift of mediastinum to same side
d) crepitations
answer: A
13. Most common complication with intra aortic balloon pump:
a) Arrhythmias

b) limb ischemia

c) hematoma at site of insertion

- d) stroke
- e) aortic dissection

answer: B

- 14. Most feared complication after thoracic aortic repair surgery is: paraplegia
- 15. "definitive" to show transection of (forgot the vessel) after trauma?
  - a) CT
  - b) CXR
  - c) aortogram/angiogram

answer : A

#### 16.. Popliteal artery aneurysm, true:

- a) 70% bilateral
- b) most common peripheral anurysm?
- c) likely to present with compression on near nerve and vessels
- d) most commonly present with pregnancy
- e) if pt have abdominal aortic aneurysm he has 50% risk of having popliteal aneurysm

answer: B

## 17. Lymphedema, false:

- a) filariasis is the most common cause of lymph edema worldwide
- b) lymphedema praecox is most common primary lymphedema
- c) best viewed by lymphogram
- d) weight loss can help to improve lymphedema in obese pt
- e) all cases must be managed surgically

answer: E

#### **EXPLANATION:**

We can treat lymphedema conservatively . weight loss help in decrease pressure on lymphatic drainage and lymphedema will improved .

18. ABP complication: Lower limb ischemia

## 19. the most significant sequelae in patients diagnosed with DVT: - Pulmonary embolism

## 20.doesn't improve claudication:

- a) Exercise
- b) Smoking cessation
- c) Aspirin
- d) Bypass
- e) Angioplasty

answer: C

### 21. -What supports the use of synthetic valve over biological valve:

- a) A patient with thrombophilia
- b) 30 year old female willing to get pregnant
- c) 70 year old co morbid male
- d) 30 year old healthy male

answer: D

# 22.-PDA all true except:

- a) Associated with maternal rubella
- b) Decreased murmur sound is a bad prognostic factor
- c) LV hypertrophy precedes RV hypertrophy
- d) Most cases closes spontaneously in the neonatalperiod
- e) One third die at age of 40 if not corrected

answer:C

# 23.most common etiology of thoracic aortic aneurysm:

- a) HTN
- b) Atherosclerosis
- c) Cystic medial necrosis

d) Marfan

answer: B

#### 24. -all are true about mediastinal masses except:

- a) Thymoma is associated with muscle weakness usually
- b) Most common mediastinal masses are metastatic tumors
- c) Thymoma is a posterior mediastinal mass

answer : C

#### ${\sf Explanation}:$

Thymoma is a anterior mediastinal tumor.

#### 25.most common pericardial tumor is:

- a) Metastatic bronchogenic cancer
- b) Lymphoma
- c) mesothelioma

answer: A

## 26. which of the following least likely to cause middle mediastinal mass:

- a) Neuroblastoma
- b) Lymphoma
- c) Thymoma
- d) Ganglionblastoma

answer : D

- 27.true about claudication: The pain is reproducible and due to ischemia
- 28.false about pneumothorax: tracheal deviation toward the affected side
- 29. false about pneumothorax: collapsed neck veins
- 30.after CVA elective surgery must be delayed to how long: 6 weeks
- 31. thoracotomy indication for hemothorax? 1000cc and continues 200cc and didn't decrease

- 32. Acute limb ischemia, mx? Embolectomy
- 33. venous ulcer, no signs of infection, mgt is ??? Compression dressing
- 34. Long term complication of DVT ???.. Stasis ulcer
- 35.most important investigation for PAD presented with intermittent claudication is: CTA
- 36.regarding lung cancer all are true except:
  - a) Concomitant radiotherapy and chemotherapy are the main treatment for stage 3b and 4
  - b) Surgery offers the best hope for cure especially in early stages
  - c) Overall 5-year survival is 65%
  - d) In small cell type chemotherapy is the main stay
  - e) Neoadjuvant chemotherapy is helpful in advanced cases

answer: C

#### Explanation:

Over all 5 year survival is 14-15%

#### 37. which of the following is true regarding venous circulation:

- a) Muscle contraction play no role in venous return
- b) The common iliac veins has valves
- c) The greater saphenous vein joins the femoral vein to become the common femoral vein
- d) In healthy person, venous pressure increases with walking
- e) The perforating veins in the leg directs the flow from the deep to superficial system

answer: D

# 38.-If appropriately utilized, supervised exercise programs for patients with peripheral vascular disease can help achieve which of the following?

- a) Gradual improvement in ankle brachial index.
- b) Improve collateral circulation.
- c) Increased walking distance.
- d) Clinical benefit in patients with claudication and rest pain but not in patients presenting with tissue loss.

e) Reduces the need for long term antiplatelet therapy.

answer: C

- 39.A 68 year old man sustains a myocardial infarct resulting from thrombotic occlusion at the origin of the left circumflex artery. Cardiac catheterization demonstrates that the patient has a left dominant coronary circulation. In which of the following areas of the heart has ischemic necrosis most likely occurred?
  - a) Apex of left ventricle and anterior portion of septum
  - b) Lateral left ventricular wall and posterior portion of septum
  - c) Lateral wall of the left ventricle only
  - d) Posterior portion of the septum only
  - e) Right ventricular wall

answer: B

- 40. Pancoast tumors are located in the apex of the lung and involve through tissue contiguity the apical chest wall and/or the structures of the thoracic inlet. Which one of the Following statements regarding Pancoast tumor is correct?
  - a) Pancoast tumor account for 25% of all bronchogenic carcinomas
  - b) Squamous cell carcinomas account for two third of all pancoast tumours
  - c) Pancoast tumours are by definition T2 tumors
  - d) Induction chemo-radiotherapy is the standard of care for any potentially resectable Pancoast tumor
  - e) Surgery for pancoast tumour is associated with 50% mortality rate

answer: B

#### Explanation:

A: false (3-5 %), C: T3 not T2, D and E: pancost tumor is one of NSCLC. We start treating. SCLC By chemotherapy induction since it was very responsive to chemo. In addition to that, in some advanced stages we can initiate treating by combination of chemo and radiotherapy. While NSCLC should by treated by resection (surgery) and sometimes adjuvant chemotherapy.

- 41. The following patient is best treated with coronary artery bypass grafting (CABG):
  - a) A 60-year-old man with class II angina, 75% proximal right coronary artery lesion, and normal ventricular function.
  - b) A 60-year-old man with unstable angina, three-vessel disease, and an ejection fraction of 35%.

- c) A 60-year-old non-diabetic man with class III angina symptoms and focal discrete lesions in the midright coronary artery and mid-left circumflex artery.
- d) A 60-year-old man with diabetes, class IV angina, 75% mid left anterior descending and 75% proximal right coronary artery obstruction, and left ventricular ejection fraction of 60%.
- e) A 60 year old man, non-diabetic, with isolated 40% mid left main stem disease

answer: B

#### 42. Regarding Pneumothorax all are true EXCEPT:

- a) Closed pneumothorax is relatively common and may not be Clinically significant
- b) In tension pneumothorax air can only escape via the bronchial tree
- c) In tension pneumothorax there may be tracheal deviation towards the contralateral lung
- d) There may be an increase of 40 mmHg in intrapleural pressure on the affected side
- e) Tension pneumothorax is usually diagnosed by CXR

answer: E

# 43. Which of the following has the highest relative risk of developing Venous Thromboembolism:

- a) Oral contraceptive use.
- b) Heterozygous carrier of FVL.
- c) Antiphospholipid syndrome.
- d) Prothrombin gene mutation.
- e) Heterozygous protein C deficiency

Answer: C

## 44. All of the following are true regarding lymphedema EXCEPT:

- a) Lymphedema praecox denotes primary lymphedema, while secondary lymphedema is also termed lymphedema tarda.
- b) Primary lymphedema has a marked female predominance.
- c) The most common world-wide cause of secondary lymphedema is filariasis.
- d) Lymphoscintigraphy is a reliable diagnostic tool for lymphedema.
- e) Methods of treatment include manual lymphatic drainage, compression devices, and surgery.

answer: A

#### 45. Which of the following does not describe intermittent claudication?

- a) Is elicited by reproducible amount of exercise.
- b) Abates promptly with rest.
- c) Is often worse at night.
- d) May be an indication for bypass surgery.
- e) May improve with time

answer: C

## 46. Tetralogy of Fallot consists of all of the following features EXCEPT:

- a) ASD.
- b) VSD.
- c) Dextroposition of the aorta.
- d) Pulmonary stenosis.
- e) Right ventricular hypertrophy

answer: A

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