



CVS Final Exam

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Pathology:

- 1- Hyperplastic arteriosclerosis is associated with which condition:
Answer: Malignant Hypertension.
- 2- Which of the following is false about valvular disease:
Answer: The pulmonary valve is targeted most in acquired.
- 3- The ingrowth of endothelial cells, smooth cells and fibroblasts into the fibrin rich thrombus is known as:
Answer: Organization.
- 4- Which statement is incorrect:
Answer: Chronic rheumatic heart disease can cause mycotic aneurysm.
- 5- What happens right before a Prinzmetal angina:
Answer: Coronary spasm.
- 6- Which type of angina manifests as transient substernal pain caused by exertion and relieved by resting:
Answer: Classic angina.
- 7- Which cancer is intermediate between malignant and benign:
Answer: Kaposi sarcoma.
- 8- Neoplasms invading IVC could result in:
Answer: Dilation of lower limb veins.
- 9- A patient with history of colon cancer complains of repetitive inflammation and thrombosis in his veins, he describes it as "constantly moving", what is the diagnosis:
Answer: Migratory thrombophlebitis.
- 10- Which of the following statements is incorrect:
Answer: White infarction can be found in lungs.
- 11- Choose the correct statement:
Answer: HTN is a major risk factor for aortic dissection.
- 12- Choose the incorrect tissue: time relation:
Answer: Wavy fibers: 4 weeks.

13- Which condition can happen to deep sea divers:

Answer: Nitrogen embolism.

14- What is the main site of origin for systemic embolism:

- a- Upper limbs.
- b- Lower limbs.
- c- Lungs.
- d- Heart.

Answer: Heart.

15- Which statement is true:

Answer: Capillary hemangioma is the most common type of hemangioma.

16- Choose the incorrect statement:

Answer: Mönckenberg sclerosis affects small arteries.

17- An example of false aneurysm:

Answer: Hematoma graft.

Physiology:

1- A patient presents with symptoms of chronic HTN and aortic stiffness, how does that affect blood pressure in the aorta:

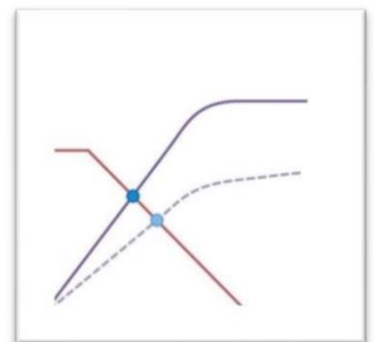
- a- Increases systolic pressure, decreases diastolic.
- b- Decreases systolic and MAP.

Answer: Increases systolic pressure, decreases diastolic.

2- What condition could result in this change of slope of CO curve?

- a- Taking Digoxin.
- b- Decreased TPR.
- c- HF with decreased contractility.
- d- Hemorrhage.

Answer: HF with decreased contractility.



3- Which of the following statements is correct:

Answer: Arterioles induce the largest decrease of pressure by having a small diameter and therefore, high resistance.

4- Which of the following statements is correct:

Answer: intermittent flow by contraction of precapillary sphincter and metarterioles prevent the flow to capillaries.

5- While administering fluids IV to a patient, her heart rate increased, then she requested to use the toilet, the most accessible explanation is:

- a- Atrial stretching increased the heart rate.
- b- Atrial stretching induced production of ADH.

Answer: Atrial stretching increased the heart rate.

6- How does anemia affect turbulent blood flow:

Answer: By increasing velocity thus inducing turbulent blood flow.

7- Upon standing up after lying down, blood pressure drops then raises back to normal immediately, the physiological explanation behind this is:

Answer: Nucleus tractus solitarius stimulates vasoconstrictor centers.

8- How does the sympathetic stimulation affect large veins:

Answer: Decrease capacitance so increase venous return.

9- After sleeping on your hand for a while, you wake up and feel numbness, a few moments later it becomes red and warm, the possible explanation behind this is:

Answer: Reactive hyperemia.

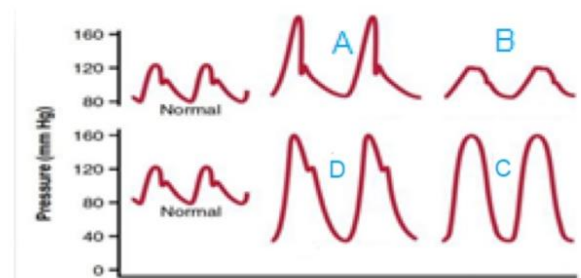
10- In AV fistula from the radial artery to the antecubital vein for dialysis patients what kind of vascular change takes place:

- a- Outward hypertrophic remodeling of radial artery.
- b- Outward remodeling of antecubital vein.

Answer: Outward remodeling of radial artery.

11- Which graph represents aortic regurgitation:

Answer: C



12- A vessels radius decreases by 50%, Q before was 600 find the new Q:

Answer: 37.5

13- A patient with crackles and edema in the lower extremities, indicating fluid buildup in the tissues. what is the underlying cause of the edema

Answer: Increased capillary hydrostatic pressure causing edema.

Pharmacology:

1- Which of the following agents is falsely matched with its side effects:

- a- Benemidol -----> Hyperuricemia
- b- Hydrochlorothiazide -----> Hyperuricemia
- c- Furosemide -----> Hyperuricemia
- d- Niacin -----> Hyperuricemia
- e- None of the above.

Answer: None of the above

2- What agent is used for sudden atrial fibrillation attack due to WPW?

Answer: Flecainide.

3- Which statin is least likely to cause myopathy:

- a- Pravastatin.
- b- Lovastatin.
- c- Simvastatin.
- d- Rosuvastatin.

Answer: Rosuvastatin.

4- Which drug should be given to a patient with previous heart failure and has QT prolongation:

Answer: lidocaine.

5- A drug lowering the triglyceride, LDL independently Of LDL RECEPTOR:

Answer: Evinacumab.

6- Which of Digoxin side effect not caused by acetylcholine overload:

- a- Xanthopsia.
- b- Nausea.
- c- Premature contraction.

Answer: Premature contraction.

7- Which drug should be administered 1-6 hours after colestipol:

Answer: Digoxin.

8- NSAIDs can relieve the side effects of which drug:

Answer: Niacin.

9- Which drug has positive inotropic and positive chronotropic effects:

Answer: Dobutamine.

PBL:

1- Distal Main Stenosis, RCA Occlusion, DM, hyperlipidemic*:

- a- Maximal therapy because the patient is young.
- b- Stent because of 100% right coronary occlusion.
- c- Surgery due to distal main stenosis.

Answer: Surgery due to distal main stenosis.

2- :

Answer: LIMA to LAD + RIMA + radial artery.

3- A patient presents with retrosternal chest pain that sharpens when lying supine and improves by leaning forward, what is the correct statement about this condition:

- a- It's treated by thrombolytics.
- b- ST elevation is limited to specific electrodes and it's not diffuse.
- c- It is caused by viral pulmonary infection.

Answer: It is caused by viral pulmonary infection.

4- What causes congestion of lungs in VSD:

Answer: Increased blood volume in lungs due to left to right shunt.

5- A patient represents with clinical signs of heart failure, what's the next step to confirm the diagnosis:

- a- CT scan of the chest
- b- ECG
- c- BNP

Answer: BNP.

6- A one-year-old patient with a classical clinical picture of TOF:

Answer: Tetralogy of Fallot.

Embryology and histology:

1- Which of these blood vessels is characterized by having a thick intima, thin media, thick adventitial with longitudinal muscle, and prominent vasa vasorum:

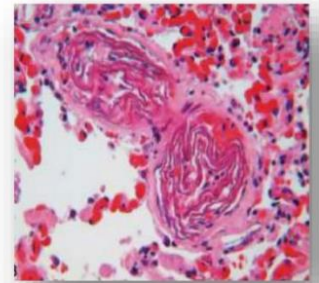
- a- Inferior Vena Cava.
- b- Radial Artery.
- c- Saphenous.

Answer: Inferior Vena Cava.

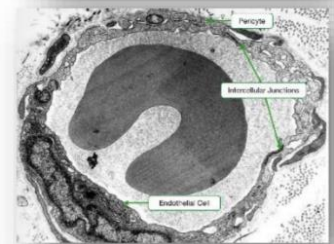
- 2- Which of the following is not a function of endothelial cells:
Answer: prevent complete occlusion of the vessels after contraction.
- 3- Fourth left aortic arch forms:
Answer: Middle aortic arch.
- 4- Right supracardinal vein forms:
Answer: azygous vein.
- 5- Diminished blood pressure in lower extremities:
Answer: Contraction of Aorta

Practical:

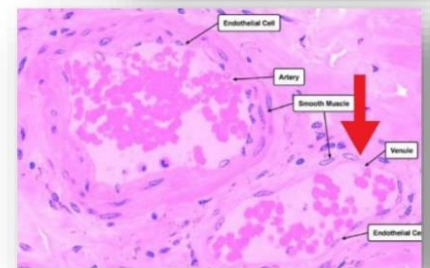
- 1- 23-year-old woman who recently had a cesarian section delivery has sudden severe dyspnea, cyanosis, pulmonary distress, The histological section of the artery shows the following:
Answer: Amniotic Fluid Embolism.



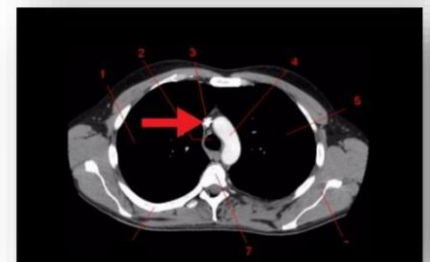
- 2- What is the vessel:
Answer: Continuous capillary.



- 3- what is the pointed structure referring to (Red Arrow):
Answer: Venule.

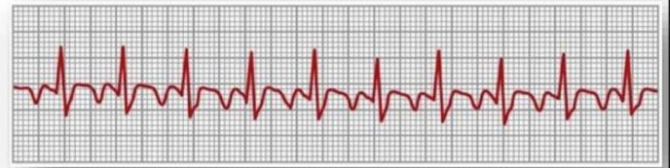


- 4- Where does the proximal part of the pointed structure originate from (Red Arrow):
Answer: Right Common Cardinal.



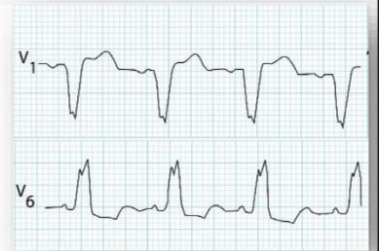
5- What is the arrhythmia:

Answer: Atrial flutter.



6- Diagnosis:

Answer: LBBB.



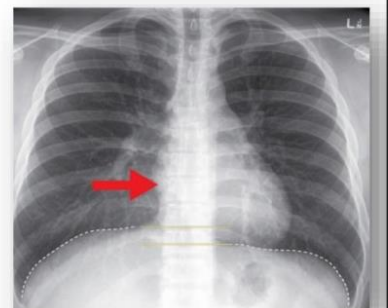
7- What is the Red arrow pointing to:

Answer: cholesterol crystals.



8- What is the structure pointed to:

Answer: Right atrium.



9- Find the duration of PR interval in the ECG:

Answer: 0.3 Sec.

10- The Right place to listen to S2 sound is:

Answer: Left sternal edge at second intercostal space