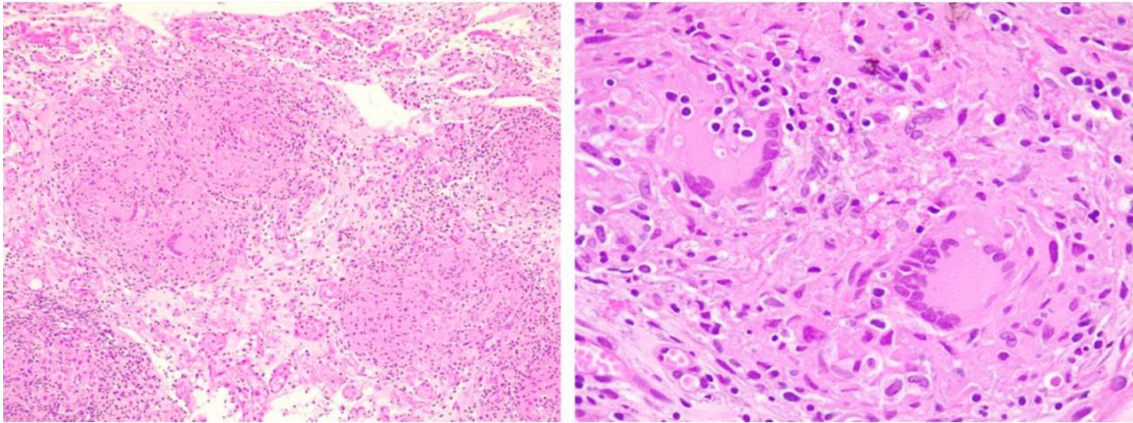


## S4 Images and English translation of the questions with image.

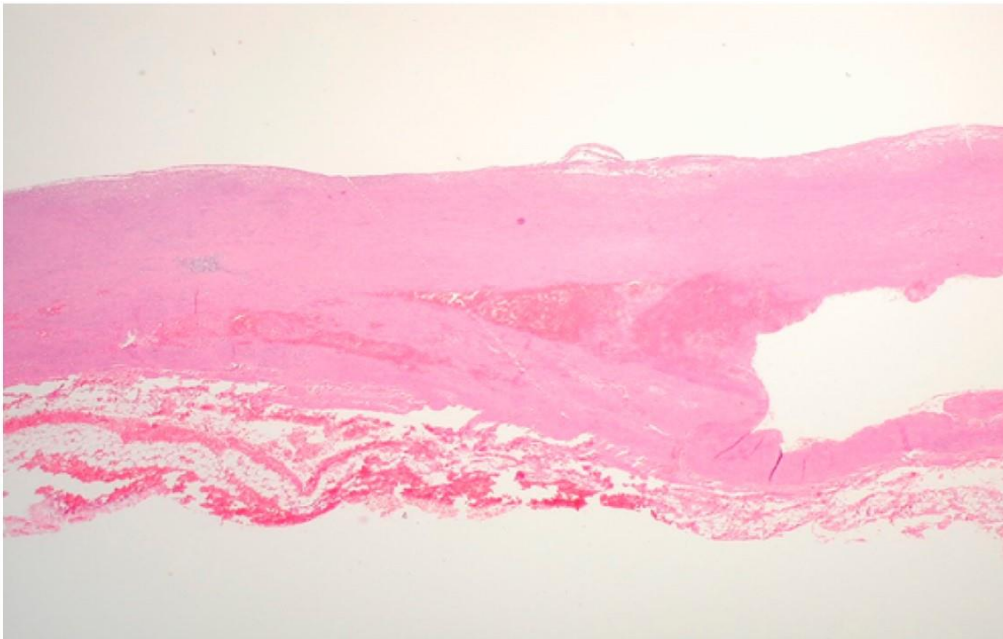
IMAGE 1



1. Question associated with image 1. A 65-year-old man, with no relevant history, who presents with cough, chest pain, fever, night sweats and dyspnea. The chest x-ray revealed a unilateral left pleural effusion, so a chest CT was performed to confirm the pleural effusion and where pleural thickening and subpleural micronodules were also observed in the left upper lobe. Given this finding, it was decided to perform a thoracoscopy with pleural biopsy, the histology of which is shown in the figure. What is the anatomopathological diagnosis of pleural lesion?

1. Infiltration by adenocarcinoma.
2. Acute inflammation with abscesses.
3. Granulomatous inflammation.
4. Mesothelioma.

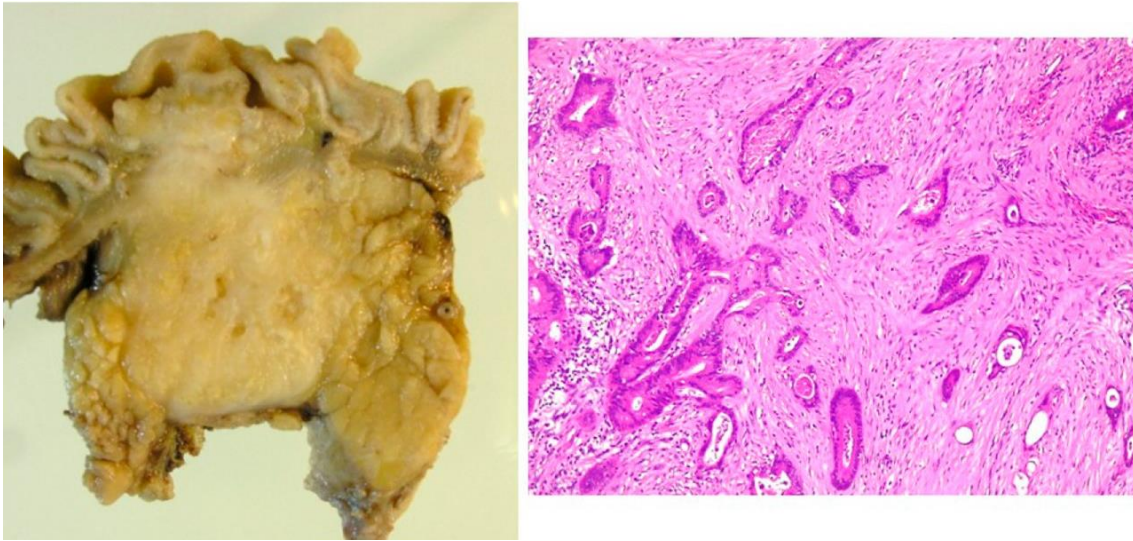
**IMAGE 2**



**Question associated with image 2.** A 20-year-old male, with a tall build, that has had dyspnea for about 15 months with great efforts progressing to dyspnea with small exertion, associated with palpitations and precordial pain. He dies suddenly while climbing stairs. The autopsy found the image of a following figure. Of the following, which is the most likely disease?

1. Pulmonary embolism.
2. Chest trauma with involvement of the aorta and heart.
3. Cystic necrosis of the media and syndrome of Marfan.
4. Familial dyslipidemic syndrome with severe atherosclerosis.

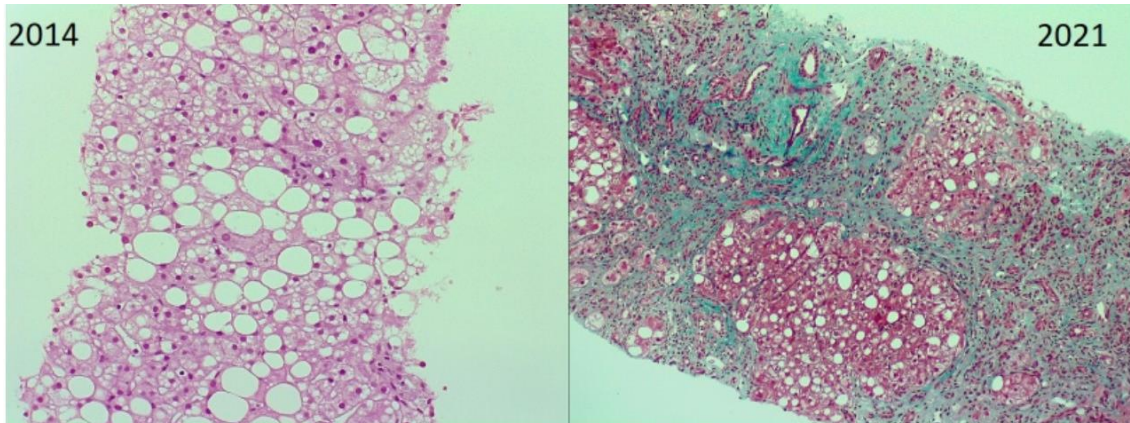
**IMAGE 3**



**3. Question associated with image 3.** An 81-year-old woman who presents with jaundice, epigastric pain, asthenia and anorexia. Abdominal CT shows a solid, poorly defined lesion of 24 x 24 mm in the head of the pancreas, which focally abuts the superior mesenteric vein and entails dilation of the bile duct. No clear contact with other main vascular structures is observed. Surgical intervention is indicated with a suspicion of a neo-formative process. A macroscopic and a microscopic image of the pancreatic lesion is shown. The immunohistochemical study performed on the resection specimen shows positivity for cytokeratin 7 and negativity for synaptophysin, trypsin, CK20 and CDX2. What is the pathological diagnosis of the pancreatic injury?

1. Ductal adenocarcinoma.
2. Serous cystadenoma.
3. Mucinous cystic neoplasm.
4. Autoimmune pancreatitis associated with IgG4 disease.

**IMAGE 4**



**Question associated with image 4.** A liver biopsy was performed on a 37-year-old patient with obesity and transaminase alterations (figure 2014), which showed intense steatosis affecting 70% of the hepatocytes. At age 7, after being diagnosed with multiple sclerosis and gaining weight, the patient had the biopsy repeated (figure 2021). Which of the following statements best describes this evolution?

1. Steatosis is less intense in the second biopsy, which is a sign of good prognosis.
2. In the second biopsy there is no evidence of inflammation or ballooning degeneration, which is a sign of a good prognosis.
3. The second biopsy shows a stable situation.
4. The presence of fibrosis in bridges demonstrates the progression of the disease.



**IMAGE 5**



5. Question associated with image 5. A 90-year-old woman presenting since ??? The injury in the image is a month and a half ago. The lesion has grown rapidly, bleeds easily and causes slight pain. Among the following options, which is the most likely?

1. Cutaneous squamous cell carcinoma invasive.
2. Sclerodermiform basal cell carcinoma.
3. Kaposi sarcoma.
4. Lupus vulgaris.

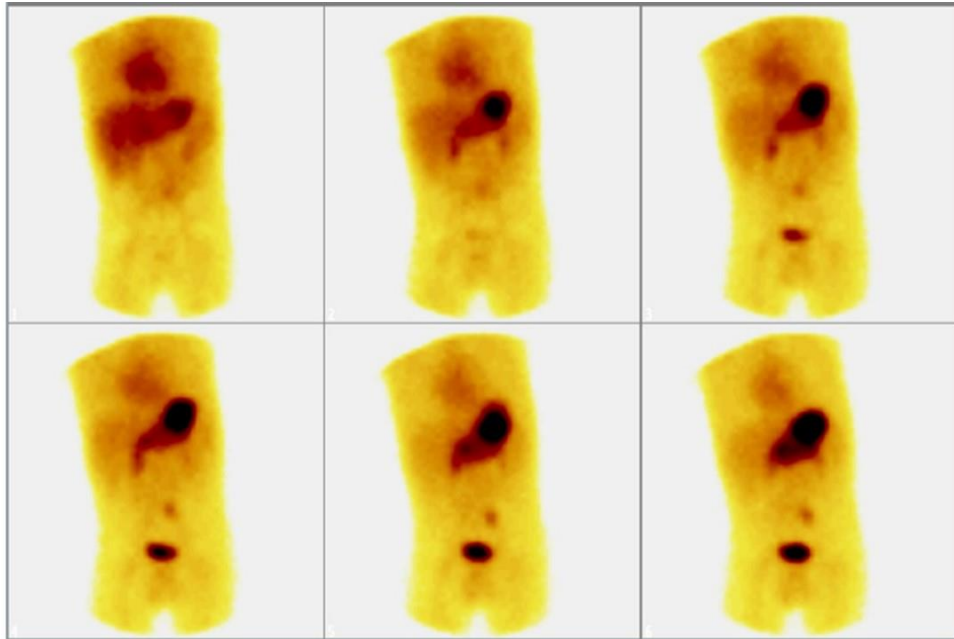
**IMAGE 6**



**Question associated with image 6.** A 70-year-old woman consulting for injuries skin lesions of 1 year of evolution, without other associated symptoms. The patient denies personal history of interest. On examination he presents with 20 finely scaly erythematous plaques discretely atrophic, sizes 4 to 10 cm on the buttocks, both armpits and breasts, without other findings. The pathological anatomy shows an infiltrated superficial dermis of lymphocytes atypical banded, with marked epidermotropism and formation of intraepidermal microabscesses. The complete blood analysis was normal. Of the following, which is the diagnosis? most likely?

1. Cutaneous Hodgkin lymphoma.
2. Sézary syndrome.
3. Cutaneous type T non-Hodgkin lymphoma.
4. Pustular psoriasis

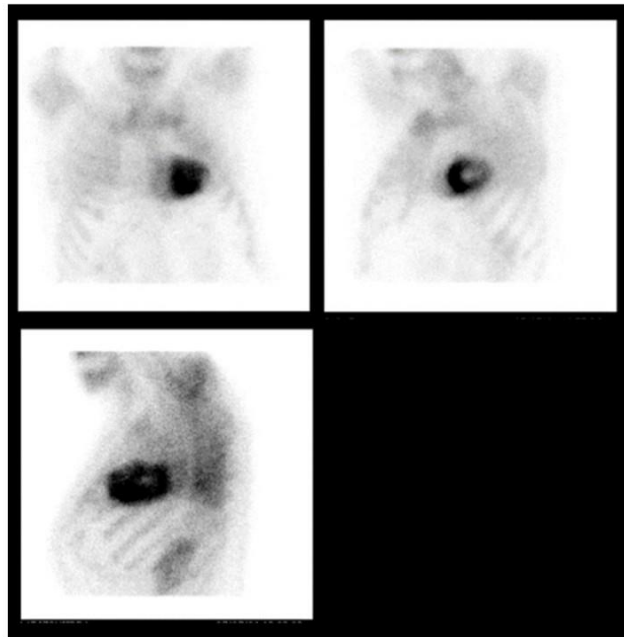
**IMAGE 7**



**Question associated with image 7.** A 23-month-old boy admitted for rectal bleeding of repetition and anemia (hemoglobin 10.0 g/dl, hematocrit 27.9%. An abdominal ultrasound study shows no findings. The image shows the scintigraphy with pertechnetate-99mTc. Of the following, the diagnosis most likely is:

1. Bleeding point of gastric origin.
2. Meckel's diverticulum lined with mucosa ectopic gastric
3. Bleeding point of genitourinary origin.
4. Normal scan.

**IMAGE 8**

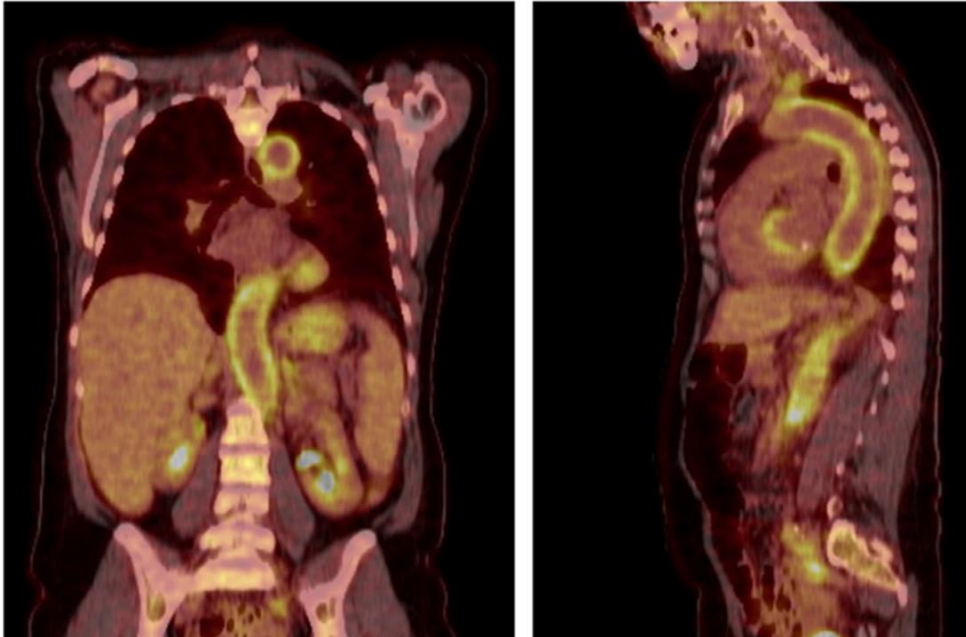


**8. Question associated with image 8.** A 86-year-old man with a history of adenocarcinoma prostate treated with brachytherapy and well-controlled HTN who goes to the emergency room due to the appearance of edema in MMII in the last two weeks and progressive dyspnea until take a break. Echocardiogram is performed transthoracic, observing mild hypertrophy concentric LV with preserved systolic function. The pyrophosphate scintigraphy is shown.  $^{99m}\text{Tc}$ . Which of the following is the most likely diagnosis?

1. Acute myocardial infarction.
2. Normal cardiac scan.
3. Transthyretin-mediated cardiac amyloidosis.
4. Pericardial effusion



IMAGE 9



BACKGROUND: The image comes from a question from the Test for Doctors. The instructions read: "Please answer the following multiple choice questions taking into account the image. Answer only with the question number and the number of the correct answer option."

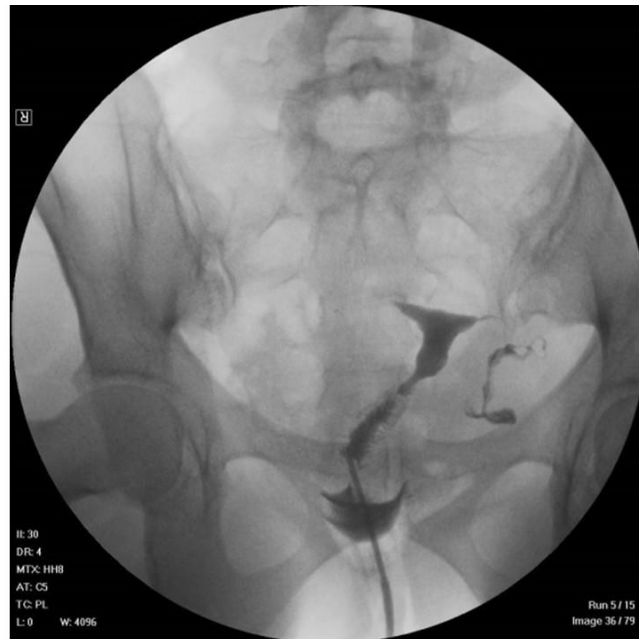
**9. Question associated with image 9** 85-year-old woman undergoing treatment with rosuvastatin due to dyslipidemia, which in the last 4 weeks presents daily fever (38-38.5°C), well tolerated, without chills and without night sweats, and 3 kg weight loss. In the exploration physical highlights thickening of the artery left temporal Analysis: PCR 12 mg/dl, hemoglobin 9.5 g/dl. Chest x-ray normal. The PET/CT result is displayed in the figure. In this context, what is the answer? correct?: 1. Fever or low-grade fever is a present symptom in less than 10% of patients .

2. When the disease is diagnosed, the radiological findings (such as those seen in this PET/CT) are present in 50-70 % from the patients .

3. Taking into account the PET/CT findings in This patient has an indication for treatment immediate with glucocorticoids (20 mg/day) and tocilizumab .

4. PET/CT is the most specific technique for establish the diagnosis .

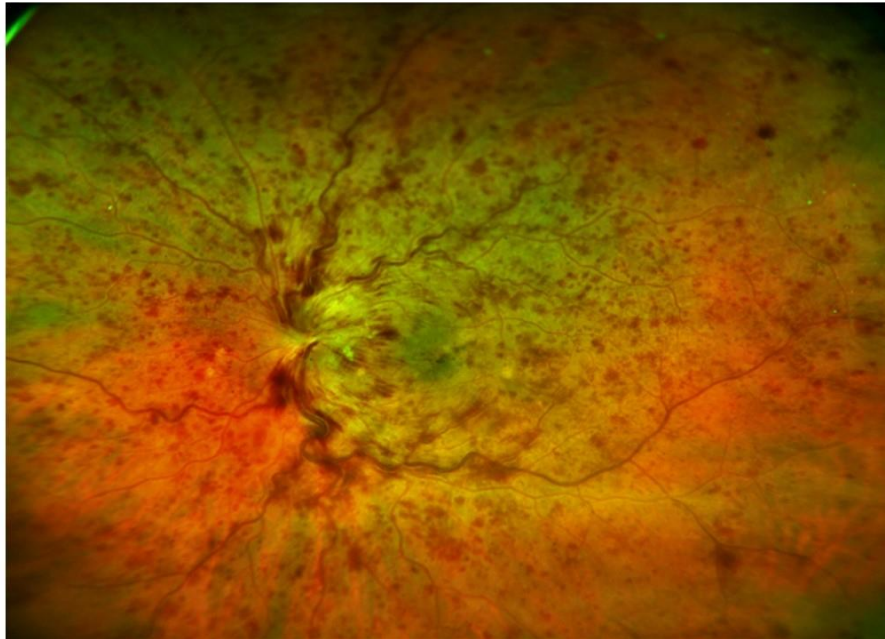
**IMAGE 10**



TEXT: 10. Question associated with image 10. 30-year-old woman without previous surgeries in study of primary sterility of 18 months of evolution. There are no pathological findings in male couple. Gynecological ultrasound is normal. Hysterosalpingography is shown in the picture. With this data, what would be the next procedure to perform?:

1. In vitro fertilization.
2. Artificial insemination.
3. Laparoscopic bilateral salpingectomy.
4. Laparoscopic chromopertubation.

**IMAGE 11**

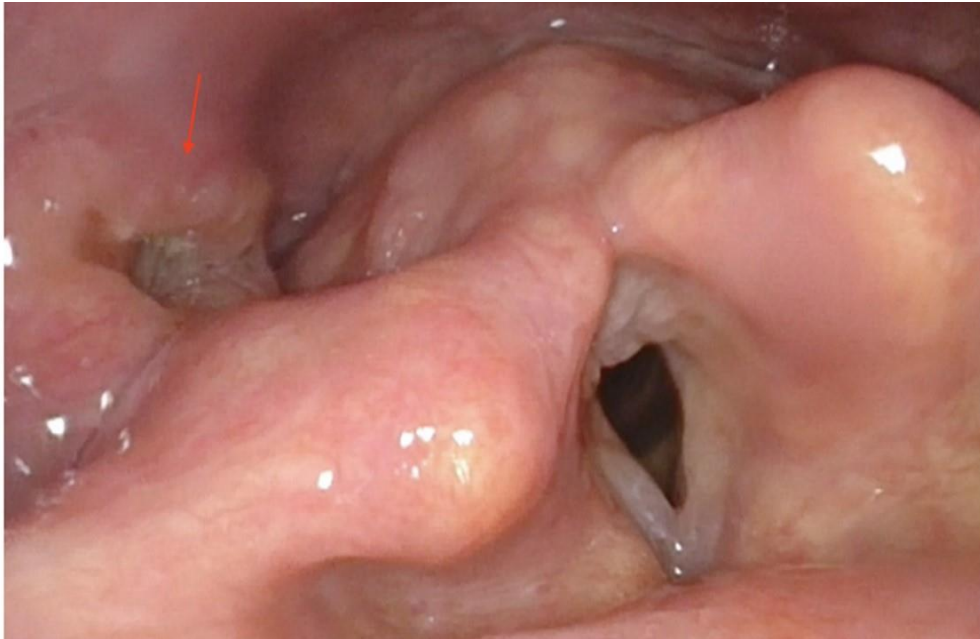


Question associated with image 11.

52-year-old obese man who goes to the emergency room due to sudden loss of vision in the right eye. In the fundus examination we found the image represented. The rest of the exploration is within normality. Which of the following pathologies do you present?:

1. Acute hypertensive star retinopathy macular
2. Proliferative diabetic retinopathy with involvement of four quadrants.
3. Cytomegalovirus retinitis.
4. Central retinal vein thrombosis.

**IMAGE 12**



**12. Question associated with image 12. 62-year-old man consults for a mass right laterocervical muscle of progressive growth which is accompanied by odynophagia. Smoker 1 pack of cigarettes a day for 30 years years. Explorations of the oral cavity, oropharyngoscopic, rhinoscopic and otoscopic are normal. Cervical palpation identifies a adenopathy at level III of 4 cm, hard and adherent to deep planes. Which is the diagnosis most probable clinical presentation according to the laryngoscopy image?:**

1. Right transglottic carcinoma with adenopathy metastatic.
2. Carcinoma of the right pyriform sinus with metastatic lymphadenopathy.
3. Carcinoma of the right supraglottis with adenopathy metastatic.
4. Carcinoma of the right palatine tonsil with metastatic lymphadenopathy

**IMAGE 13**



**13. Question associated with image 13. 64-year-old woman presenting with central thoracic pain 24 hours of evolution without other clinical manifestations. In the x-ray of thorax, what finding is found?:**

1. Aortic aneurysm.
2. Acute pericarditis.
3. Pneumonia.
4. Hiatal hernia.



**IMAGE 14**



**14. Question associated with image 14. A 74-year-old man presents with pain in the right hemithorax with pleuritic characteristics of 1 week's duration, dyspnea on moderate exertion, productive cough and low-grade fever, without general syndrome. The analysis highlights CRP 92.9 mg/L and D-dimer 1,630 ng/ml (normal <500). The postero-anterior chest radiograph is shown. What is the suspected diagnosis and the attitude to follow?:**

1. Request CT angiography of the pulmonary arteries for suspected pulmonary thromboembolism.
2. Start antibiotic treatment for suspected pneumonia without signs of complications and radiological control in 4-6 weeks.
3. Refer to specialized consultation for radiological suspicion of lung carcinoma.
4. Request an x-ray in the right lateral decubitus position for suspected encapsulated pleural effusion prior to thoracentesis.

QUESTION 15 WAS RECUSED AND ELIMINATED

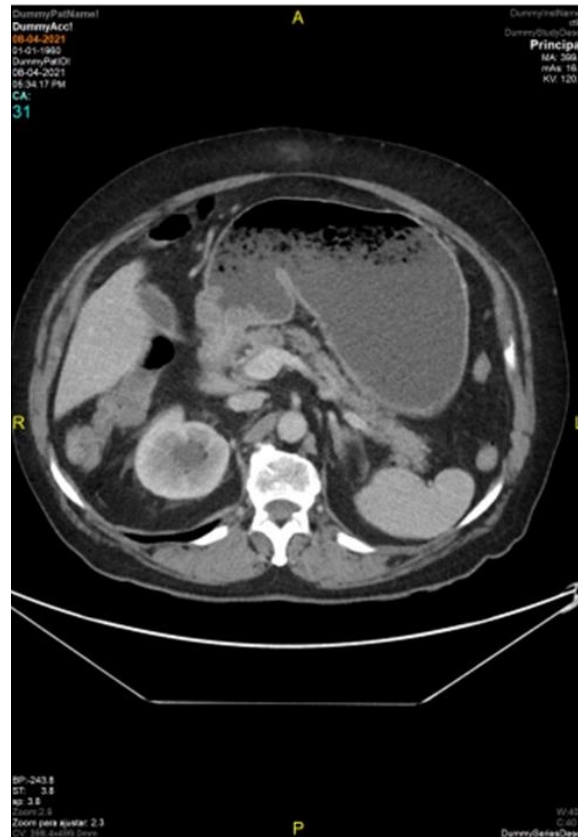
IMAGE 16



16. Question associated with image 16. 47-year-old man with no relevant history who goes to the emergency room with a fever of up to 39°C with chills and sweating, for a week evolution, accompanied by epigastric pain and general discomfort. Abdominopelvic CT is performed with intravenous contrast shown in the picture. Which of the following diagnoses It is more likely?:

1. Liver abscess.
2. Hepatic hemangioma.
3. Hepatocarcinoma.
4. Focal nodular hyperplasia with necrosis in its inside.

IMAGE 17



17. Question associated with image 17. 74-year-old male with no relevant history query to present for 15 days continuous feeling of abdominal distension and oral intolerance with occasional vomiting of smelly content. In analytics only Highlights blood glucose 110 mg/dl, CRP 6.3 mg/L (normal 0-5) and 13,140 leukocytes/microL. HE performs abdominal CT with intravenous contrast, that shows. Considering the data clinical and imaging tests, what diagnosis It is more likely?:

1. Gastric obstruction due to antrypyloric neoplasia.
2. Emphysematous gastritis.
3. Diabetic gastroparesis.
4. Peptic ulcer with signs of contained perforation.

**IMAGE 18**



**18. Question associated with image 18. 43-year-old man allergic to penicillin who presents septic mouth, febrile syndrome, dysphagia, edema, erythema and submandibular pain for one week of evolution, without improvement with treatment anti-inflammatory and antibiotic. Image provided of the cervicofacial CT performed after administration intravenous contrast What diagnosis Do you suggest?:**

1. Ludwig's angina.
2. Lingual abscess.
3. Abscessed pharyngitis.
4. Abscessed lingual dermoid cyst.



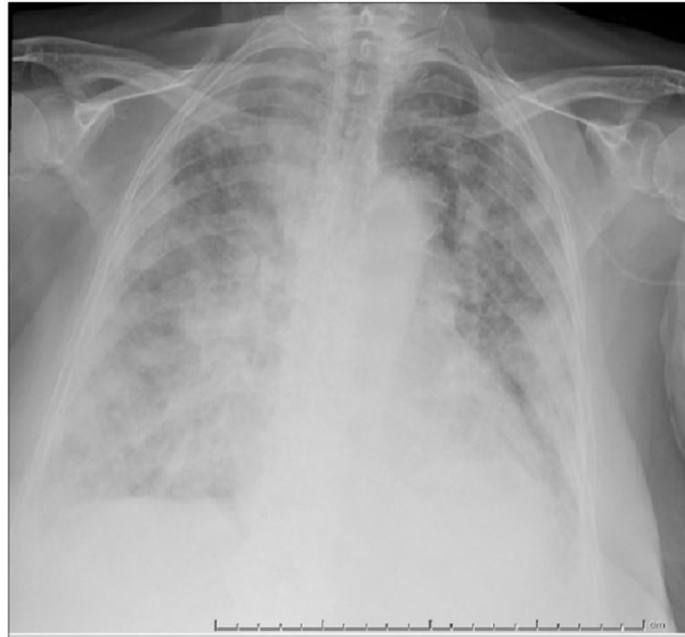
IMAGE 19



19. Question associated with image 19. A 56-year-old man with a history of HIV infection diagnosed a few months ago, who is found confused, disoriented and with right hemiparesis. The family reports that he has had significant weight loss in the last 6 months, as well as frequent diarrhea. He has not started antiretroviral treatment due to personal desire. Analysis shows an HIV-1 viral load of 600,000 copies/mL, 130 CD4 lymphocytes, 900 total lymphocytes, and a CD4/CD8 ratio of 0.1. Toxoplasma serology, CMV viral load and cryptococcal antigen in blood are negative. Brain MRI is shown in the figure. What is the most likely diagnosis?:

1. Cerebral toxoplasmosis.
2. Primary lymphoma of the central nervous system.
3. Progressive multifocal leukoencephalopathy.
4. CMV encephalitis.

**IMAGE 20**



**20. Question associated with image 20. 75-year-old patient diagnosed with endocarditis resistant *Staphylococcus aureus* bacteria to methicillin after presenting a fever of 10 days of evolution, systolic murmur in mitral focus 1-2/6, compatible transthoracic echocardiography and positive blood cultures. It is being administered vancomycin. After 4 days of antibiotic therapy presents intense dyspnea, orthopnea and BP 110/55 mmHg. A murmur is appreciated in the mitral focus irradiated to axilla 3/6. The x-ray is shown of thorax. Indicate the most appropriate attitude:**

1. Add voriconazole to the treatment.
2. Replace vancomycin with daptomycin and administer furosemide.
3. Add gentamicin, rifampin, furosemide and nitrites.
4. Indicate urgent valve replacement surgery tratamiento deplectivo.

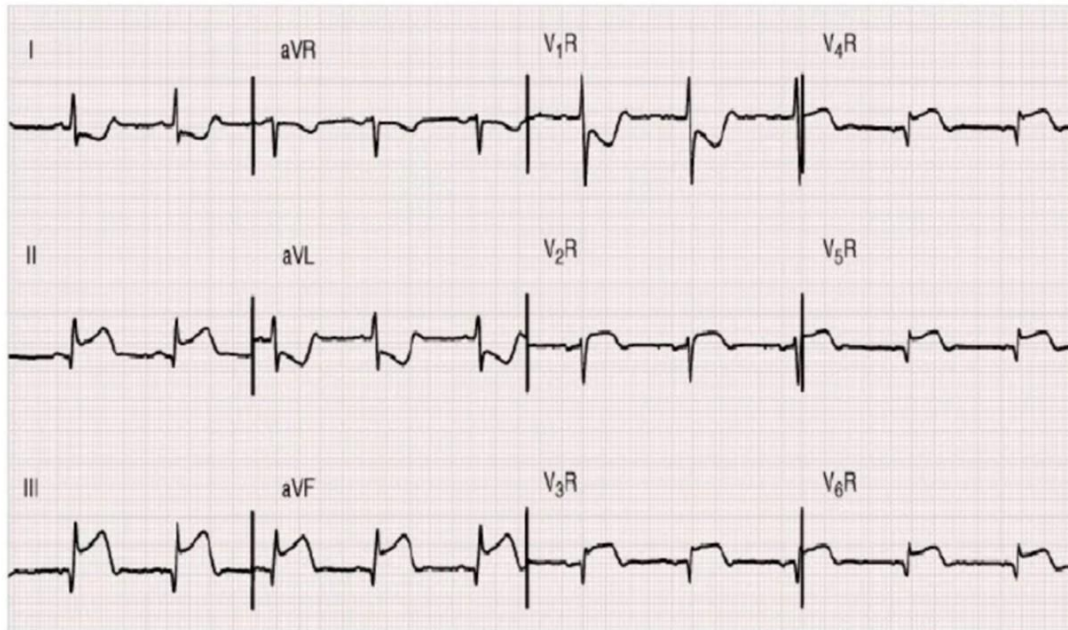
**IMAGE 21**



**21. Question associated with the image 21. The presence of skin lesions in the form of violaceous papules on the back of interphalangeal joints, such as those seen in the figure, are very characteristic of:**

1. Subacute cutaneous lupus.
2. Porphyria cutanea Tarda.
3. Dermatomyositis.
4. Psoriatic arthropathy.

IMAGE 22



**22. Question associated with image 22. A 64-year-old woman with a history of diabetes mellitus, high blood pressure and obesity (body mass index 34) who is treated at home by the emergency service after presenting with chest pain during a night's rest. intense sweating, dizziness and vomiting for two hours. An urgent electrocardiogram is performed (image). The physical examination revealed a slight decrease in the level of consciousness, acral coldness, and blood pressure of 75/30 mmHg, in addition to an increase in jugular venous pressure during inspiration and the appearance of pulsus paradoxus, with no evidence of pulmonary edema in the patient. auscultation. With the clinical, exploratory and electrocardiographic data presented, what complication of the infarction do you suspect in this patient?:**

1. Right ventricular involvement.
2. Rupture of the basal interventricular septum.
3. Rupture of the posteromedial papillary muscle mitral.
4. Inferobasal ventricular pseudoaneurysm.

**IMAGE 23**

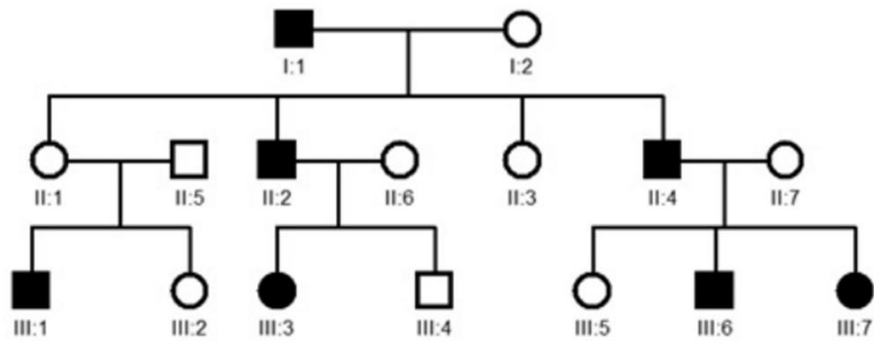


**23. Question associated with image 23. A 19-year-old male with a family history of sudden death in his father who presented with symptoms of angina and syncope on exertion, with a sensation of rapid palpitations with exertion. He presents the attached ECG. An echocardiogram is performed and he is diagnosed with cardiomyopathy. Considering your suspicion of the type of cardiomyopathy he presents, indicate the true answer:**

1. Left ventricular ejection fraction very frequently it is less than 55 %.
2. This entity is due to hypertrophy of the septum with dynamic obstruction in the tract left ventricular outflow.
3. It is not associated with diastolic dysfunction.
4. The thickness of the wall of the left ventricle is normal or decreased.



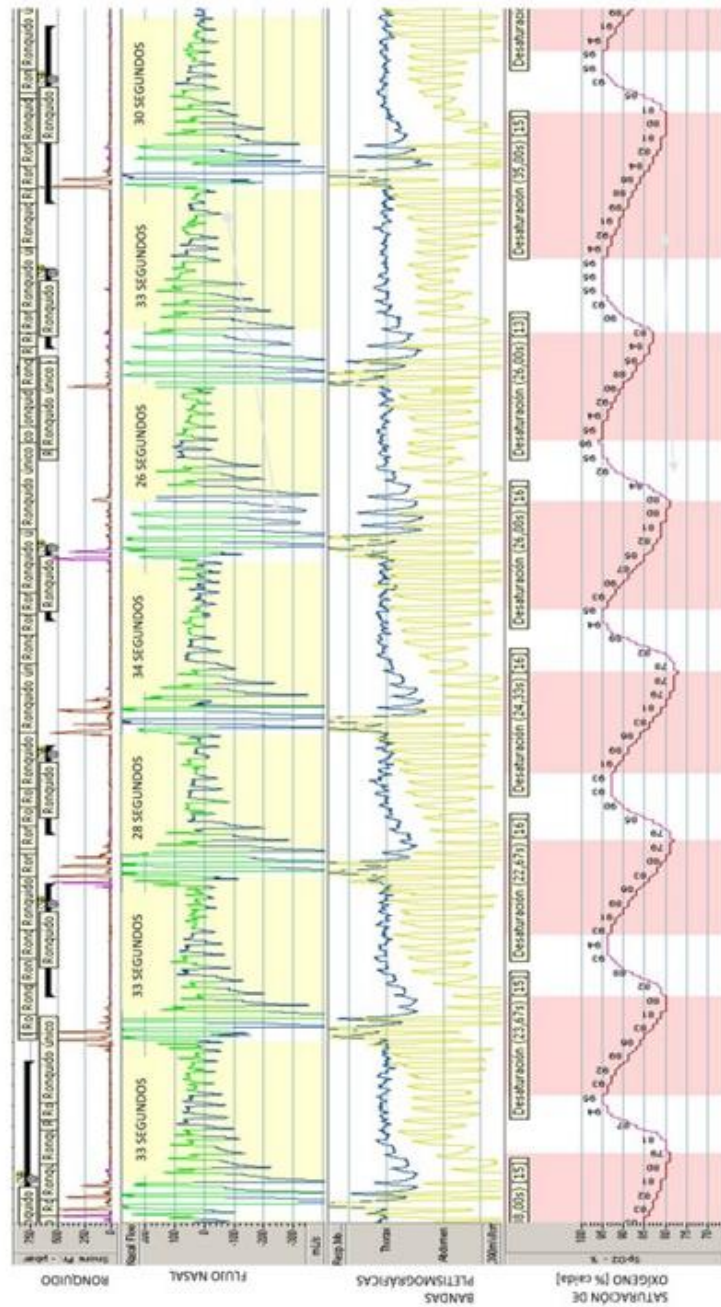
IMAGE 24



**24. Question associated with the image 24. In this genealogy a pattern of autosomal dominant inheritance with a generation skip in II-1 (his father I-1 and his son III-1 are affected by the disease while II-1 does not manifest it). What is this phenomenon called?:**

1. Mitochondrial inheritance.
2. Variable expressiveness.
3. Incomplete penetration.
4. Variation in phenotype due to environment.

**IMAGE 25**



25. Question associated with the image 25. The image corresponds to 5 minutes of study of a respiratory polygraphy in a 62-year-old man. What type of respiratory event is seen in the same?:

1. Obstructive apnea.
2. Respiratory effort associated with microawakening.
3. Central apnea.
4. Hypopnea.