Jordan *university* of science and technology "JUST"

Internal Medicine miniOSCE

Re-oriented by: Yazan Alawneh

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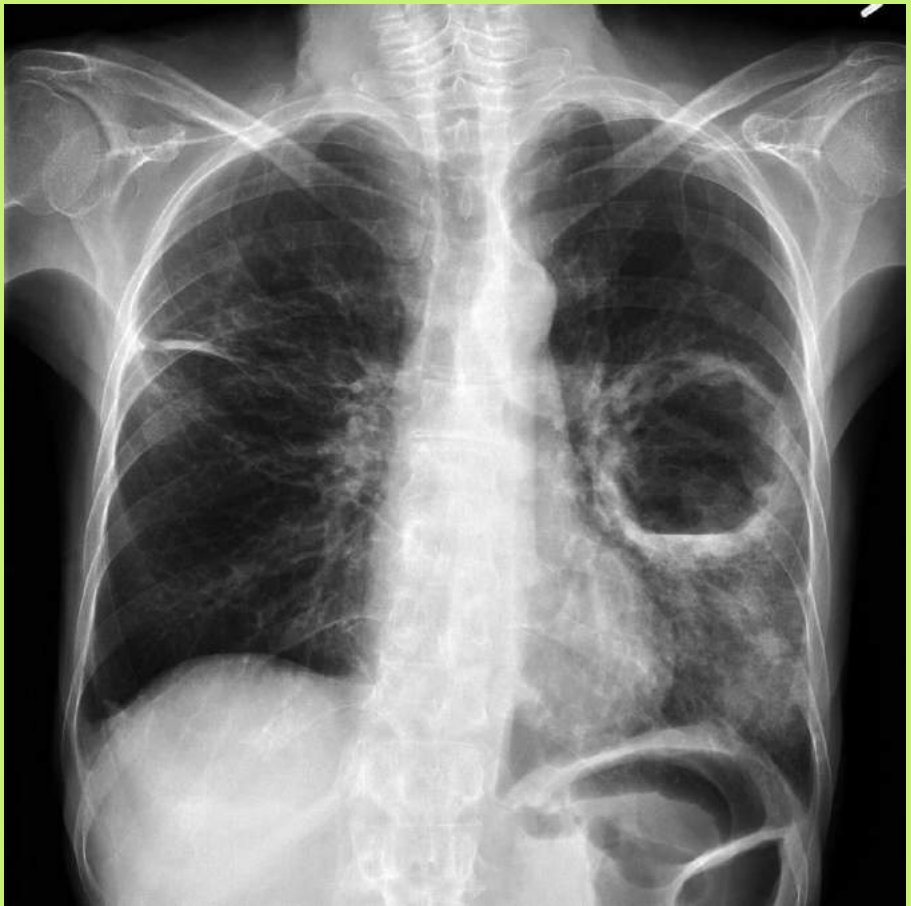
Respiratory

Q3: This patient had a 2-week history of fever, rigors and chills.

A- What is the diagnosis?

B- Mention two lines of management.

C- Give 2 DDx?

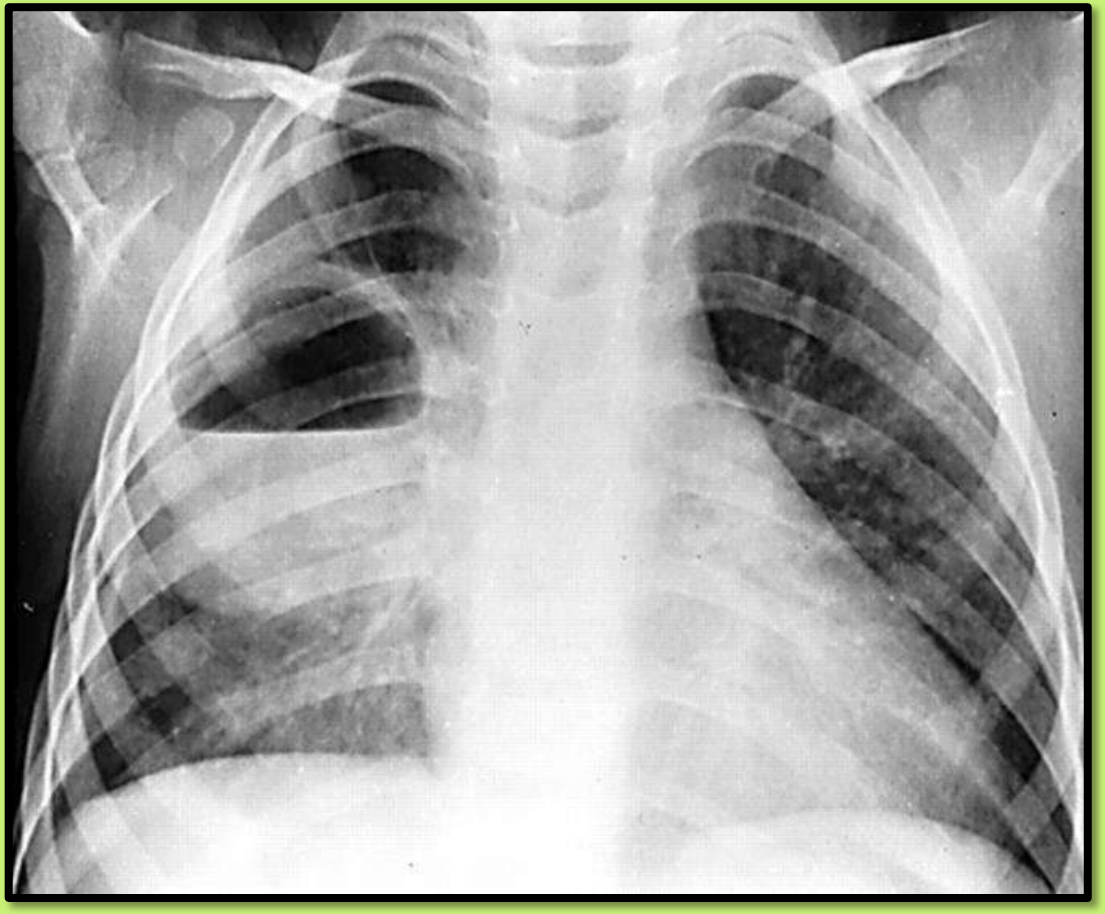


A. Lung abscess (Right sided)

B. Antibiotics, Surgical drainage

C. Cyst with fluid level in the Lt. Lower zone; give 2 DDx: TB abscess, hydatid cyst.

Q12: This patient came with chills, fever & cough, what is your diagnosis?

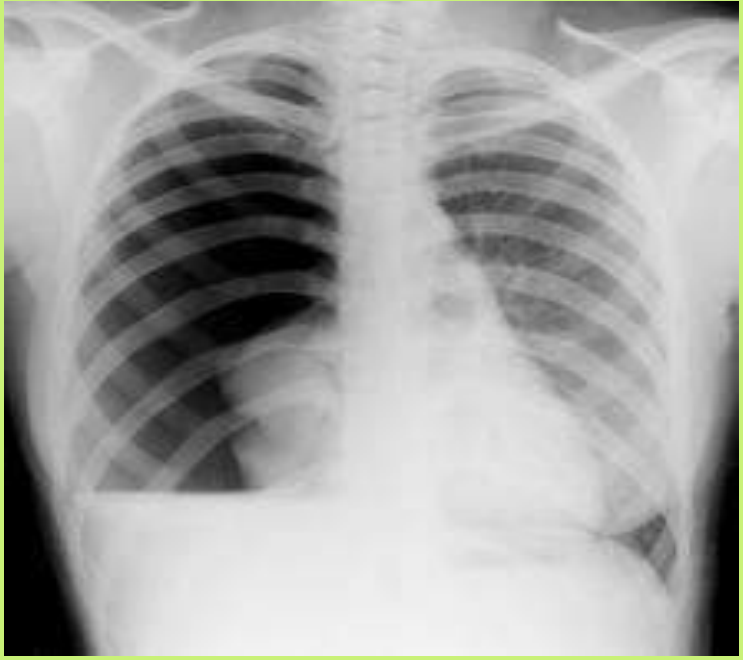


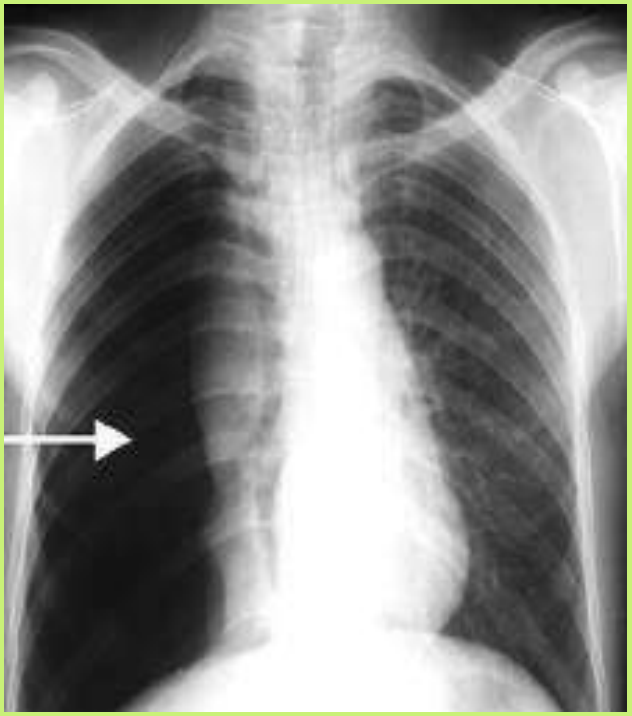
Right Lung abscess.

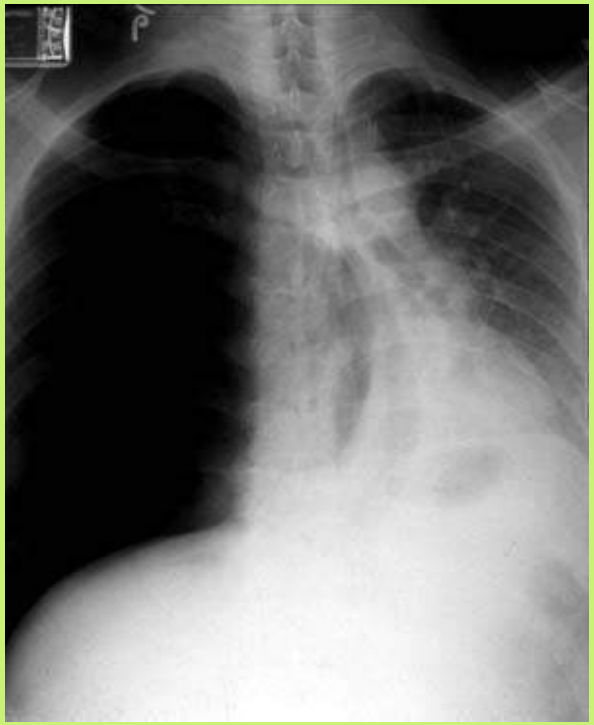
Q10: A 42 YO pt is presented with sudden onset breathlessness, SOB. An urgent CXR was done for him & showed the following.

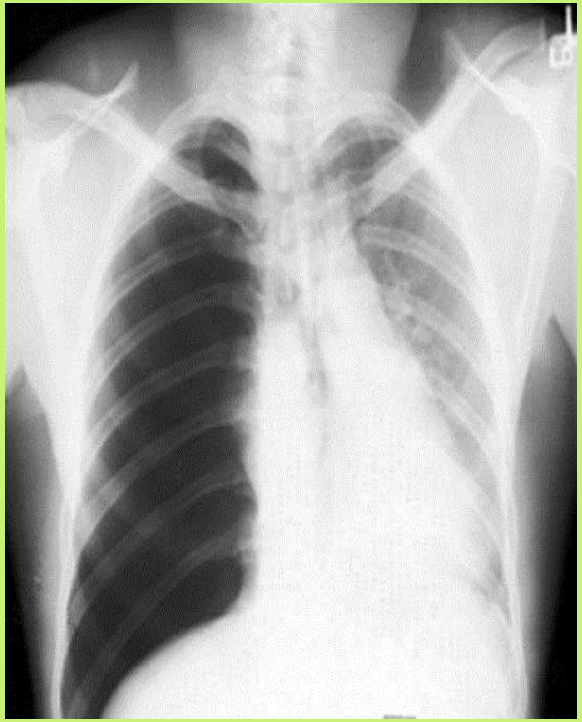
A-What is the diagnosis?

B- What is the immediate Mx?







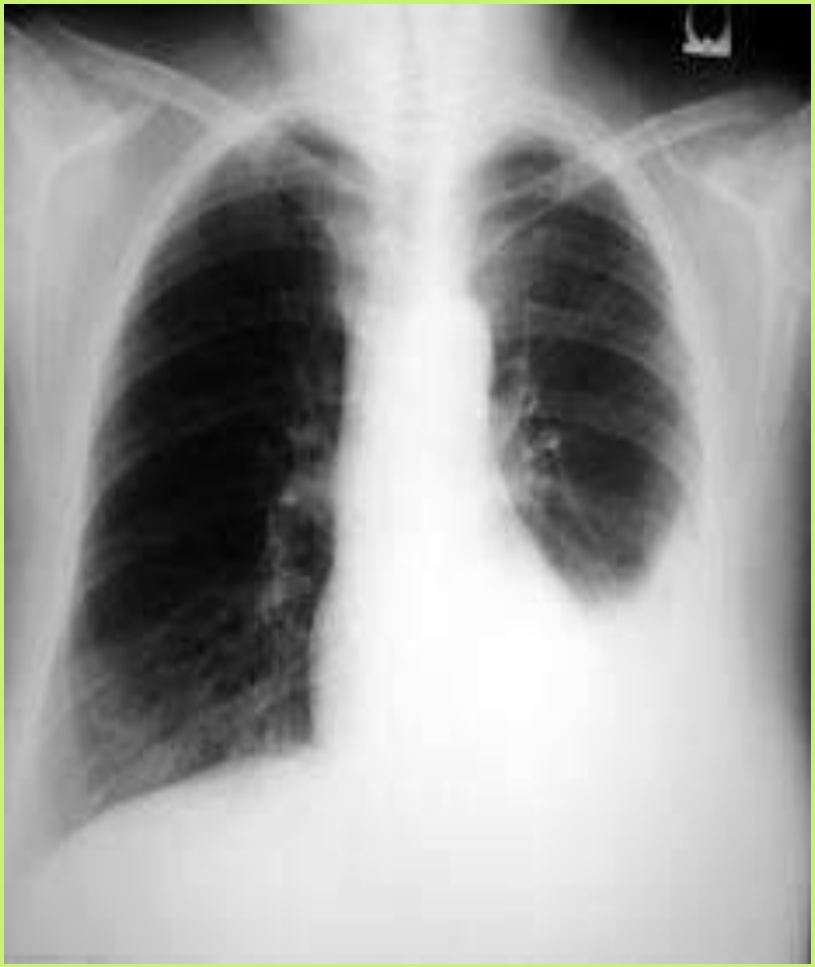


A. Right-sided tension pneumothorax .

B. Insertion of a chest tube . (Needle thoracostomy)

Question #1

A young patient presented with fever & chest pain.

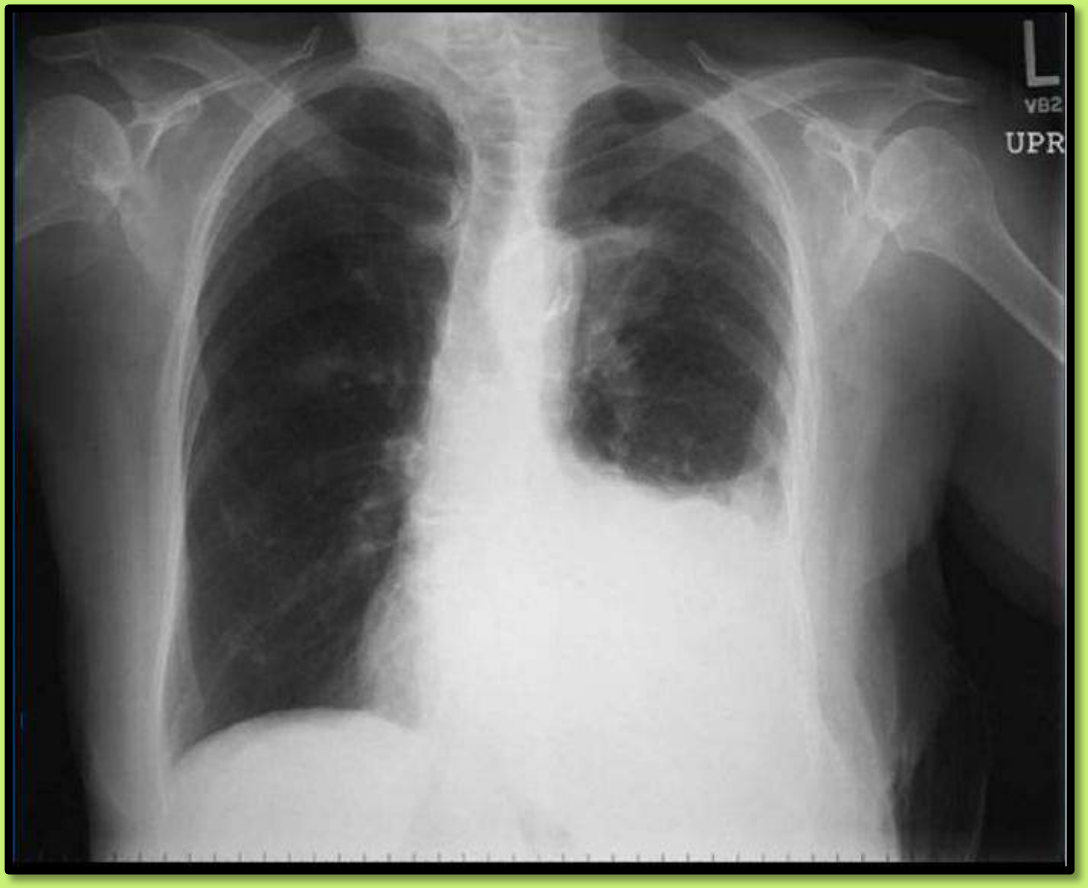


1. What's the X-ray diagnosis?
2. What's the underlying cause?

1. Left pleural effusion.

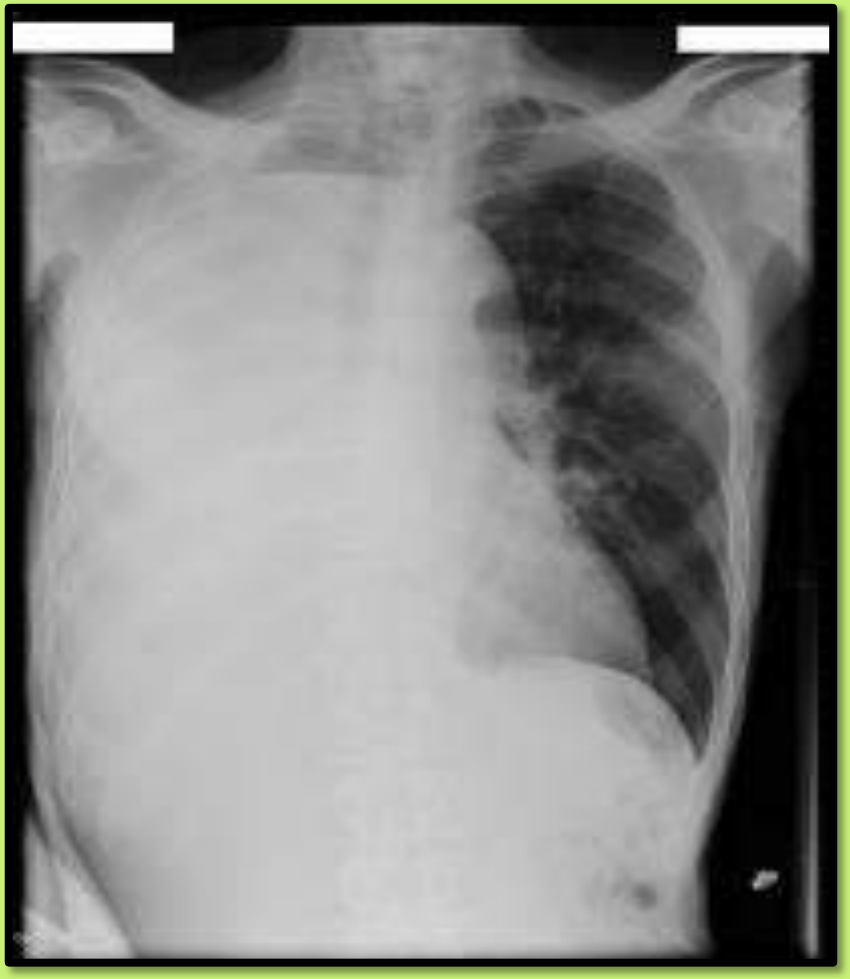
2. Left lower lobe pneumonia.

Q9: This X-ray is for a pt admitted with SOB, he has stony dullness on percussion, diminished breath sounds, decreased vocal resonance & fremitus over the left side, What is your Dx?



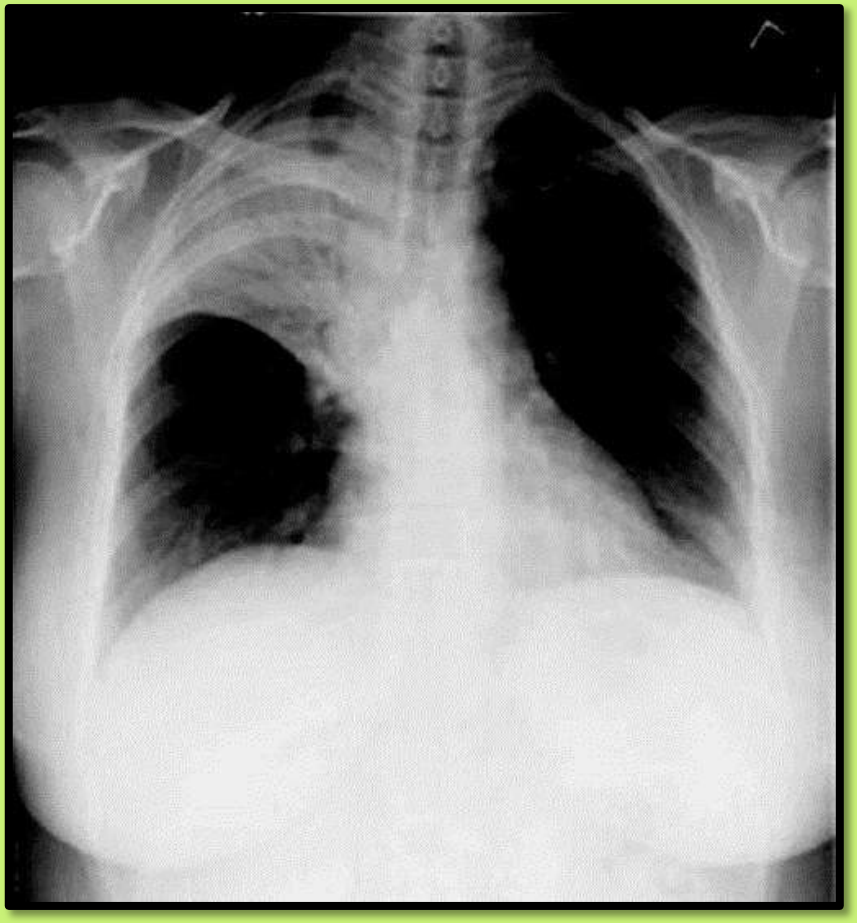
left pleural effusion.

Q1: The pt presented with SOB. On physical exam, his chest was dull to percussion. What's your Dx. from the x-ray?



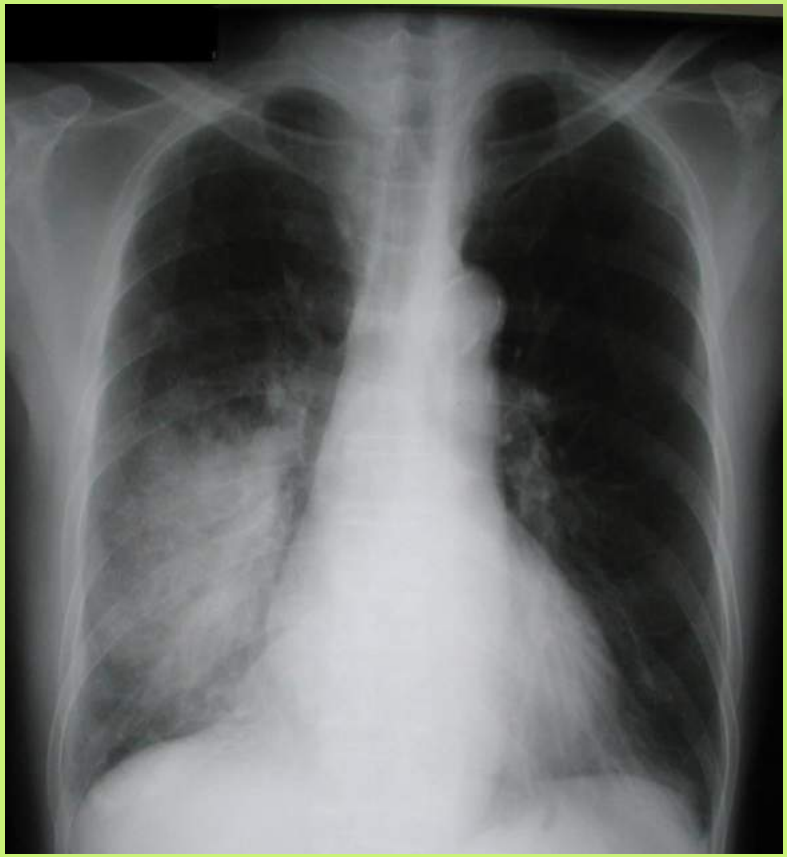
Right-side pleural effusion, or right lung collapse/atelectasis (not sure!).

Q12: Diabetic patient with productive cough of 3 days duration associated with fever & chills. What is the diagnosis?



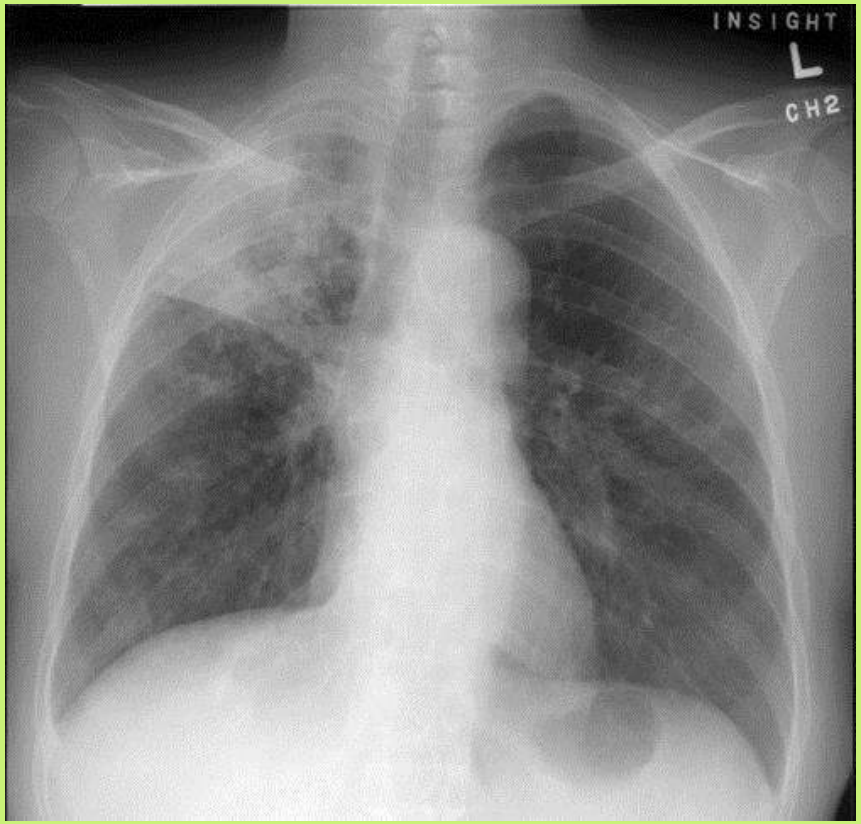
RUL pneumonia.

Q7: 35 YOmale pt, previously healthy presented complaining of cough of greenish sputum & fever, What's the most likely micro-organism?



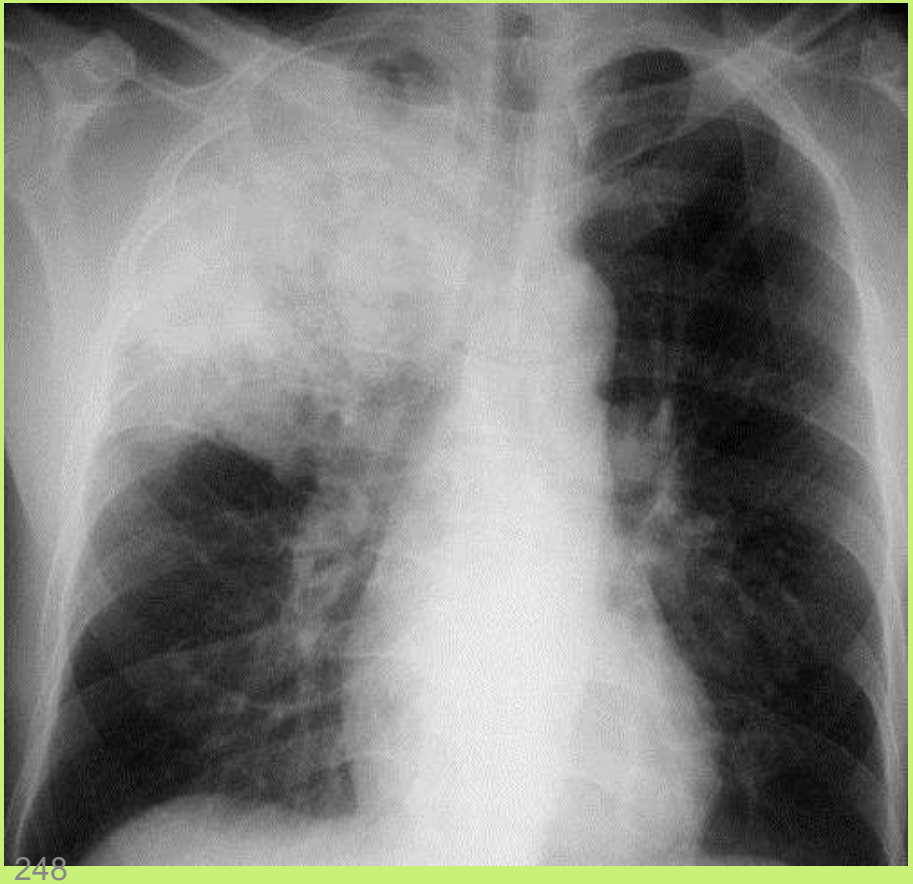
Strep. Pneumonia

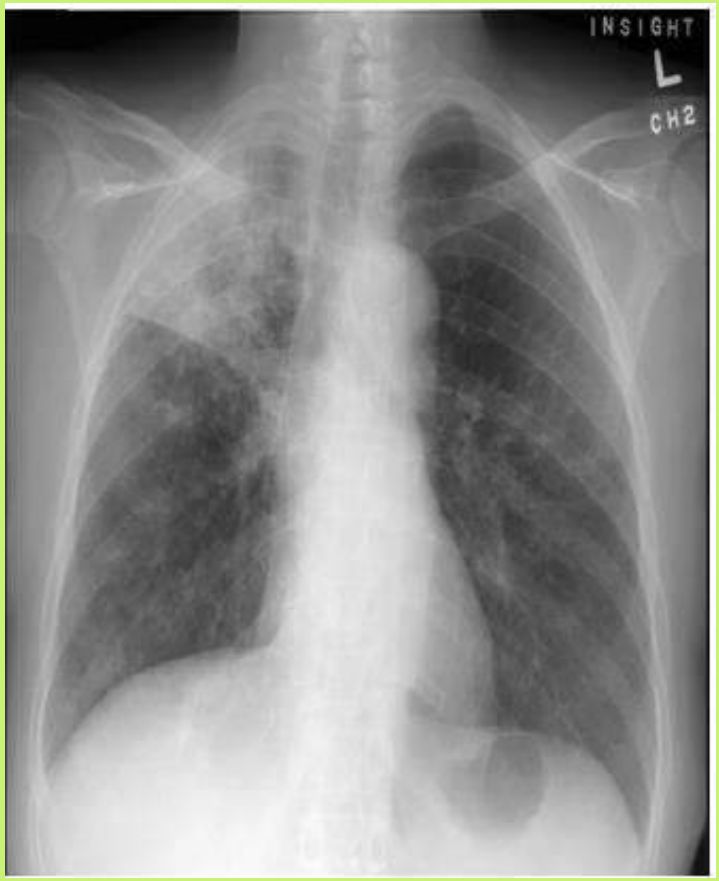
Q11: This pt presented with productive cough, associated with hemoptysis & intermittent fever, resistant to levofloxacillin. what are CXR findings? Investigations?



Rt upper lobe consolidation (TB) >> PPD, Sputum analysis , Bronchoscopy.

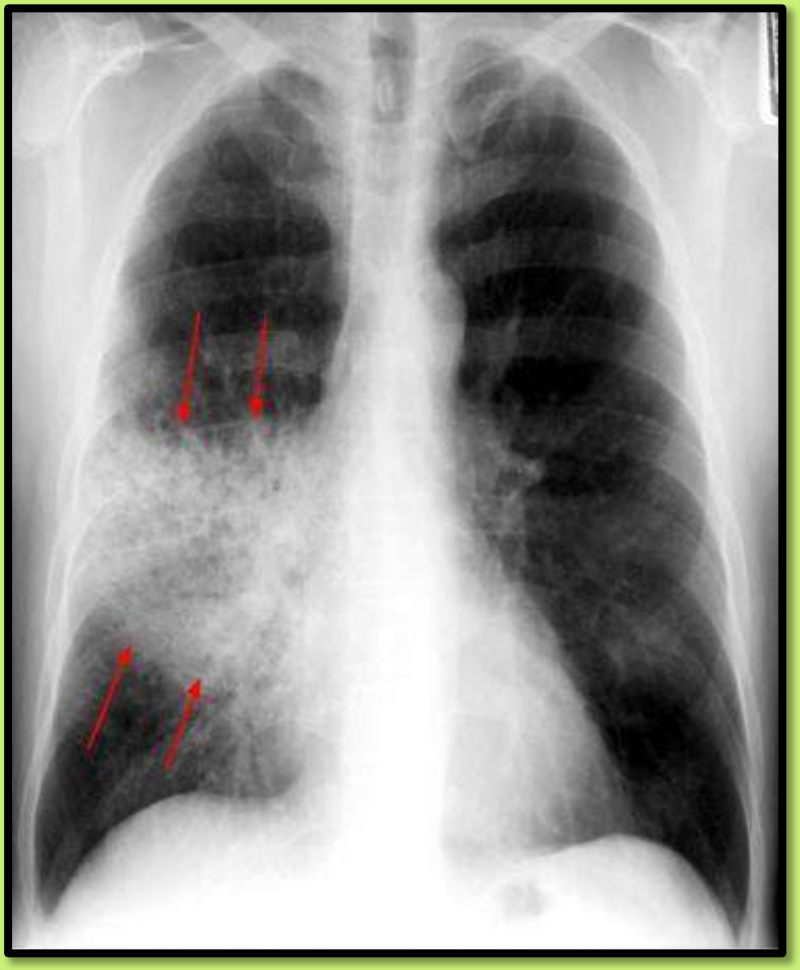
Q5: This pt presented with cough for 8 weeks, fever, Hemoptysis, wt loss, night sweats & anorexia. What is the finding in this CXR? What is your Dx.?





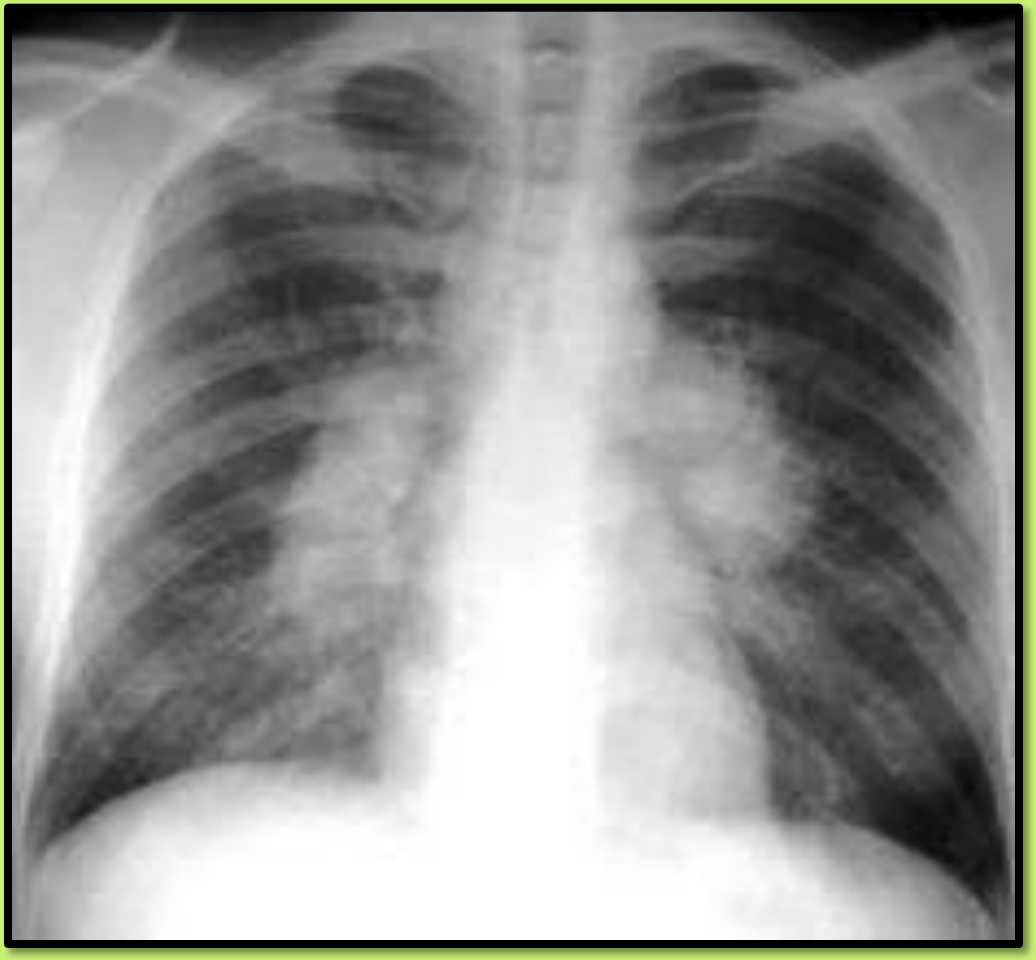
1. Right upper lobe consolidation.
2. Tubercolosis.

Q7: Mention 2 auscultatory findings in the pts with this X-ray.



A. Crackles, pleural rub.
B. Bronchial breathing.

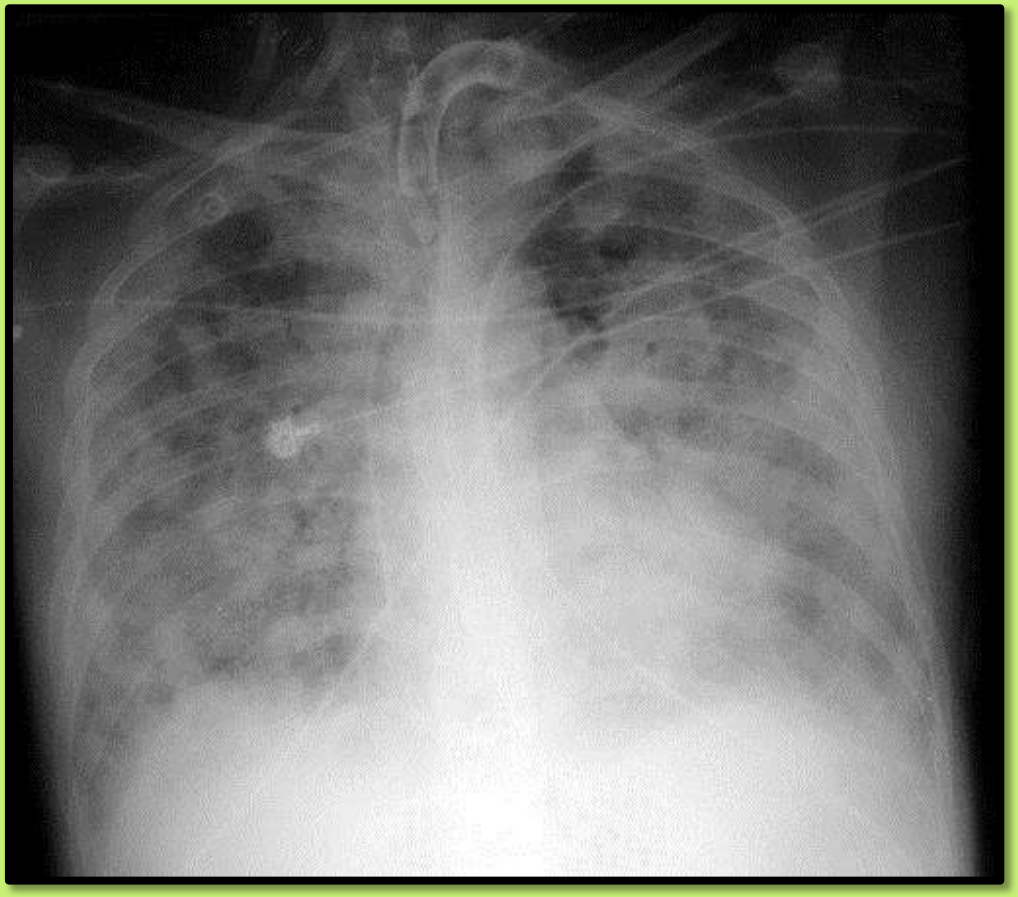
Q4: This pt came with red nodule on lower limbs. Mention 2 findings. What is the Dx?



1. bilateral hilar lymphadenopathy.
2. reticulonodular infiltration /

Dx=Sarciodosis.

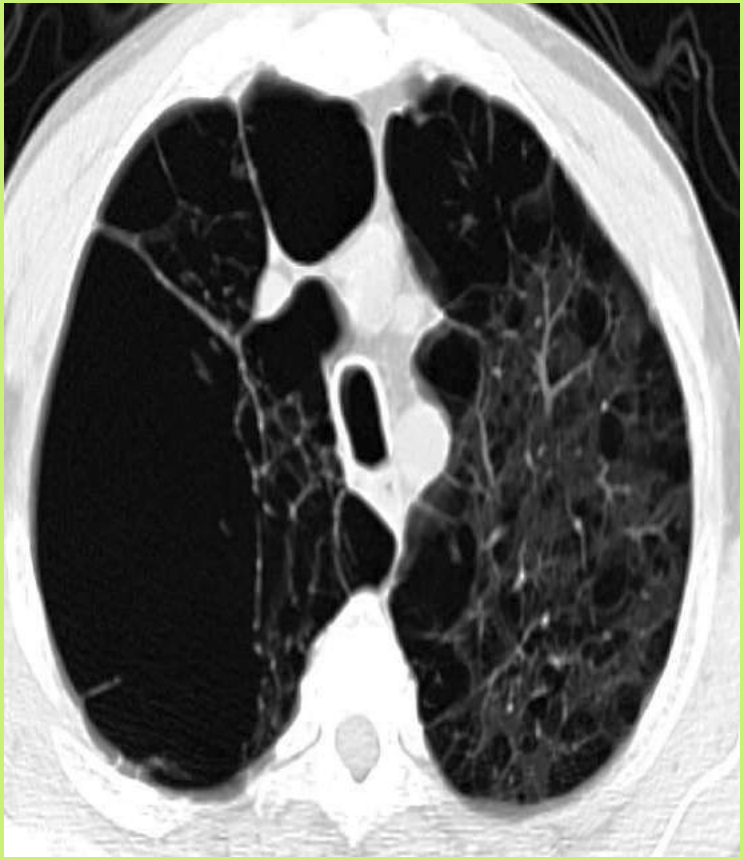
Q6: 35 YO male pt, known case of pancreatitis only, presented to ER complaining of SOB, What's the cause of his SOB?



ARDS.

Question #10

Mention the abnormal radiological finding in this picture.

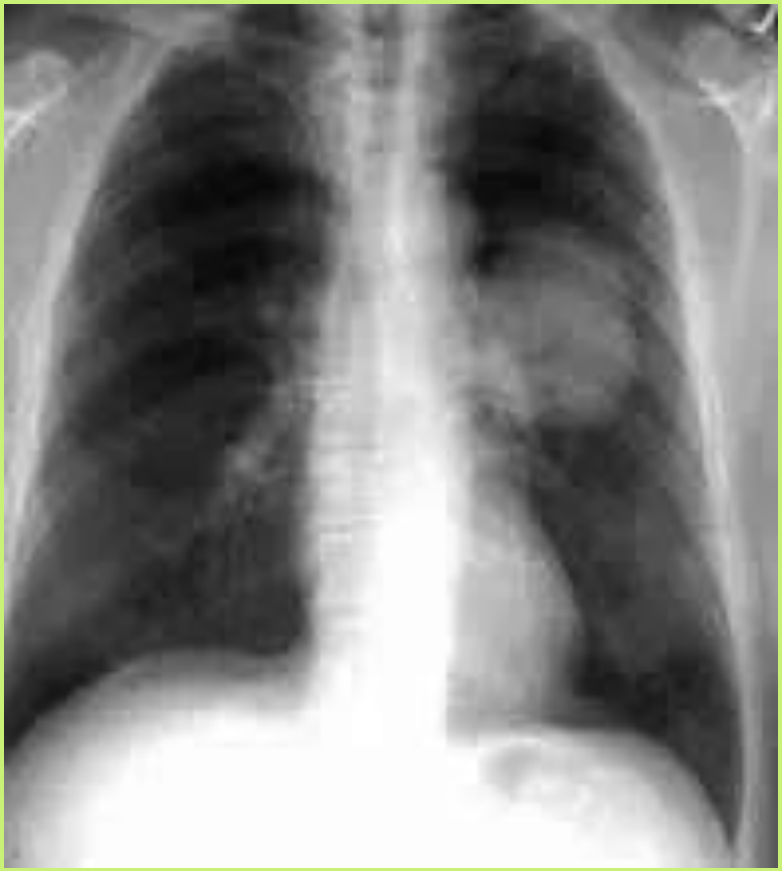


Bullous Emphysema

Question #20

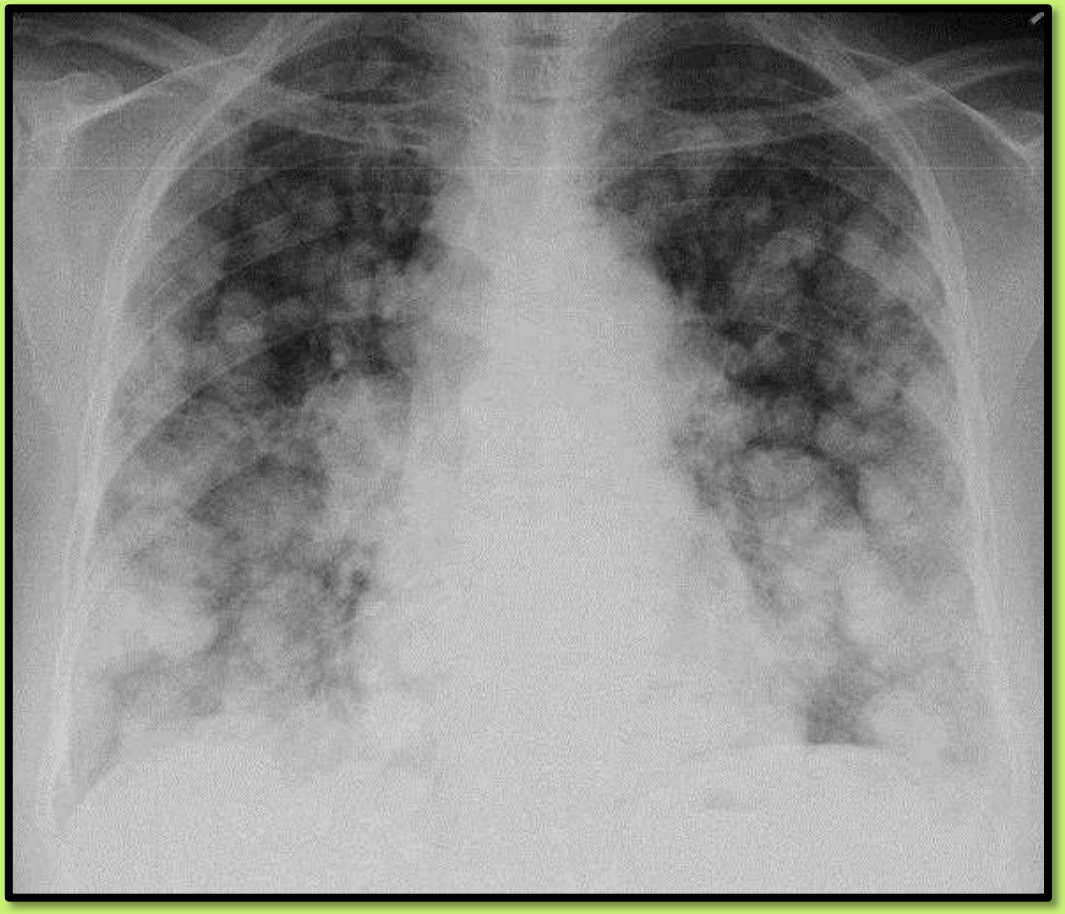
This patient presented with hemoptysis.

1. What's your diagnosis?
2. What's your next investigation?



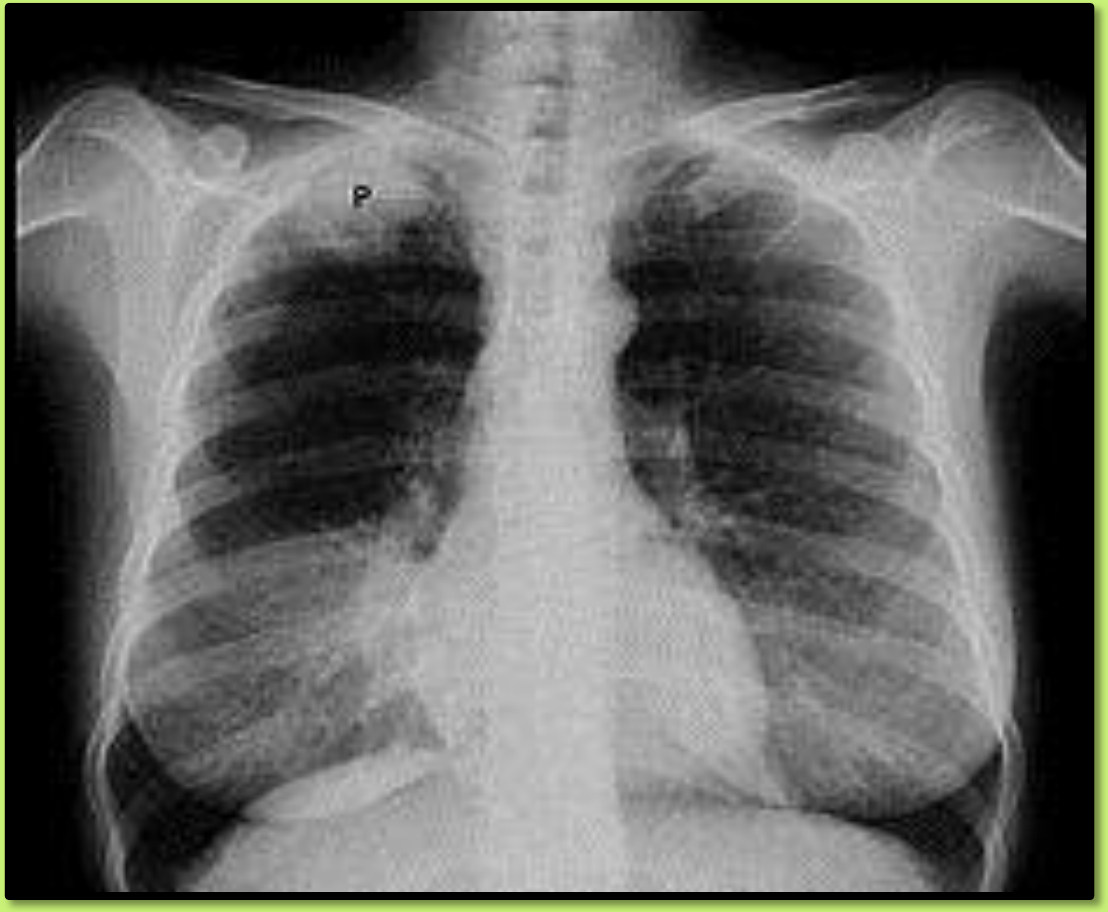
1. Lung cancer.
2. Bronchoscopy & biopsy.

Q6: Patient with back pain, hematurea, Weight loss, anorexia & general weakness. What is the Dx.?



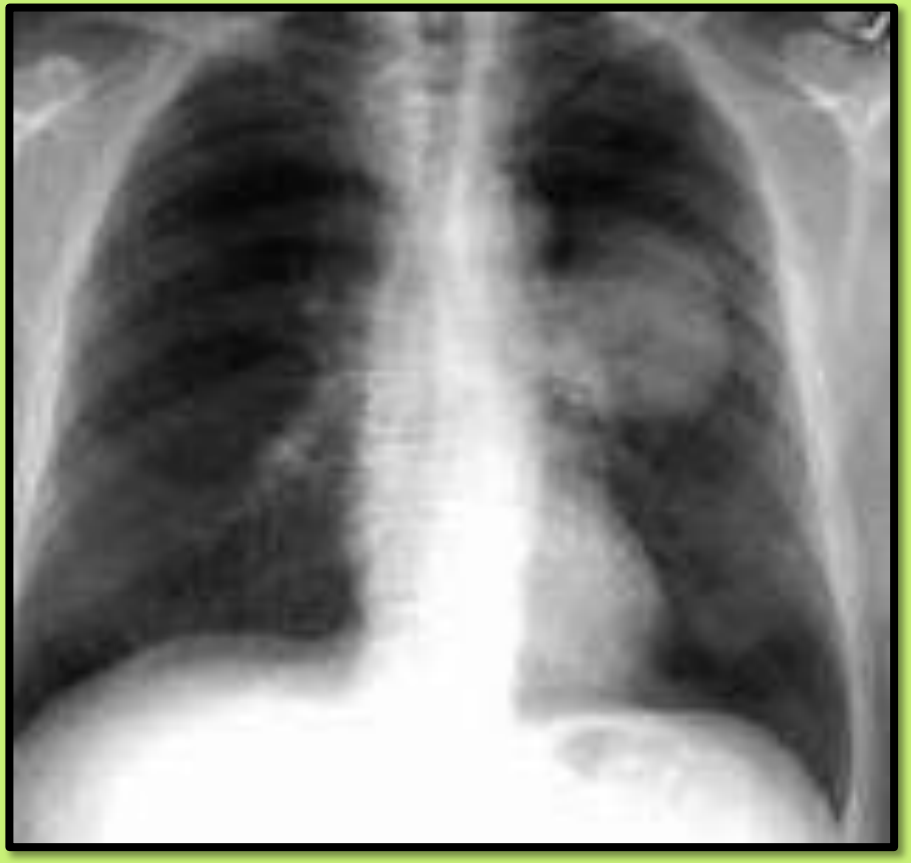
Lung metastasis.

Q9: This pt presented with ptosis & miosis on the right side of his face. Mention 2 findings can be seen in this pt's hand.



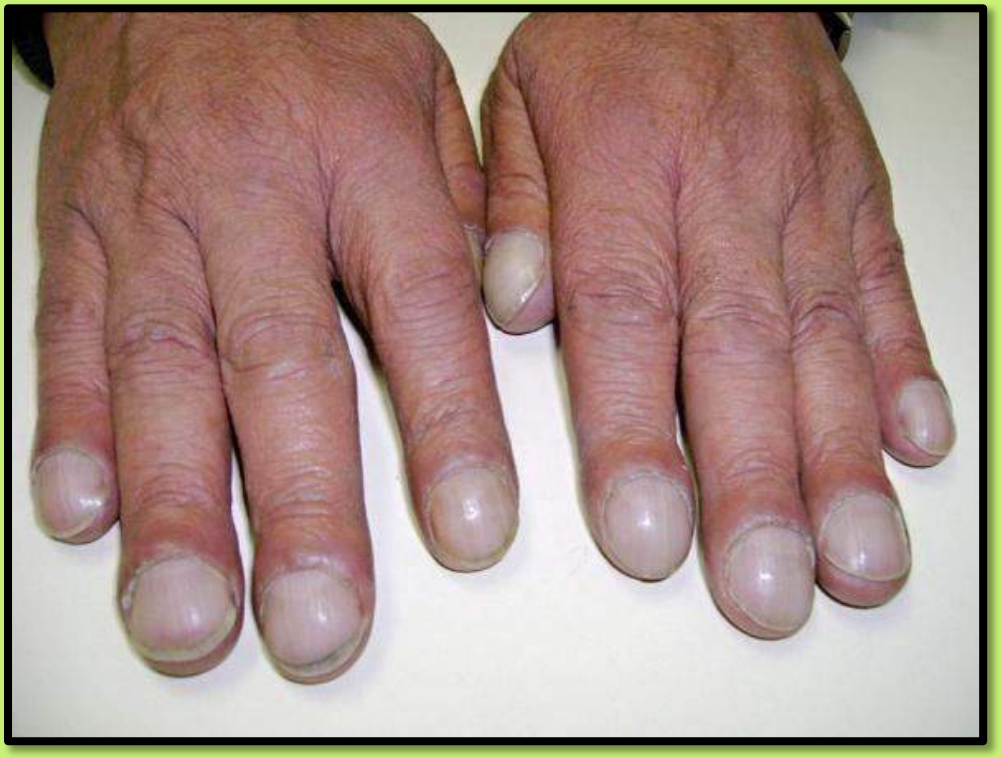
1. Muscle atrophy.
2. Muscle weakness.
3. Numbness/Parasthesia.
4. Clubbing.

Q5: 65 YO male smoker came with cough, hymoptosis, loss appetite, polyurea & polydepsia. what is the Dx? & what's the cause of polyurea?



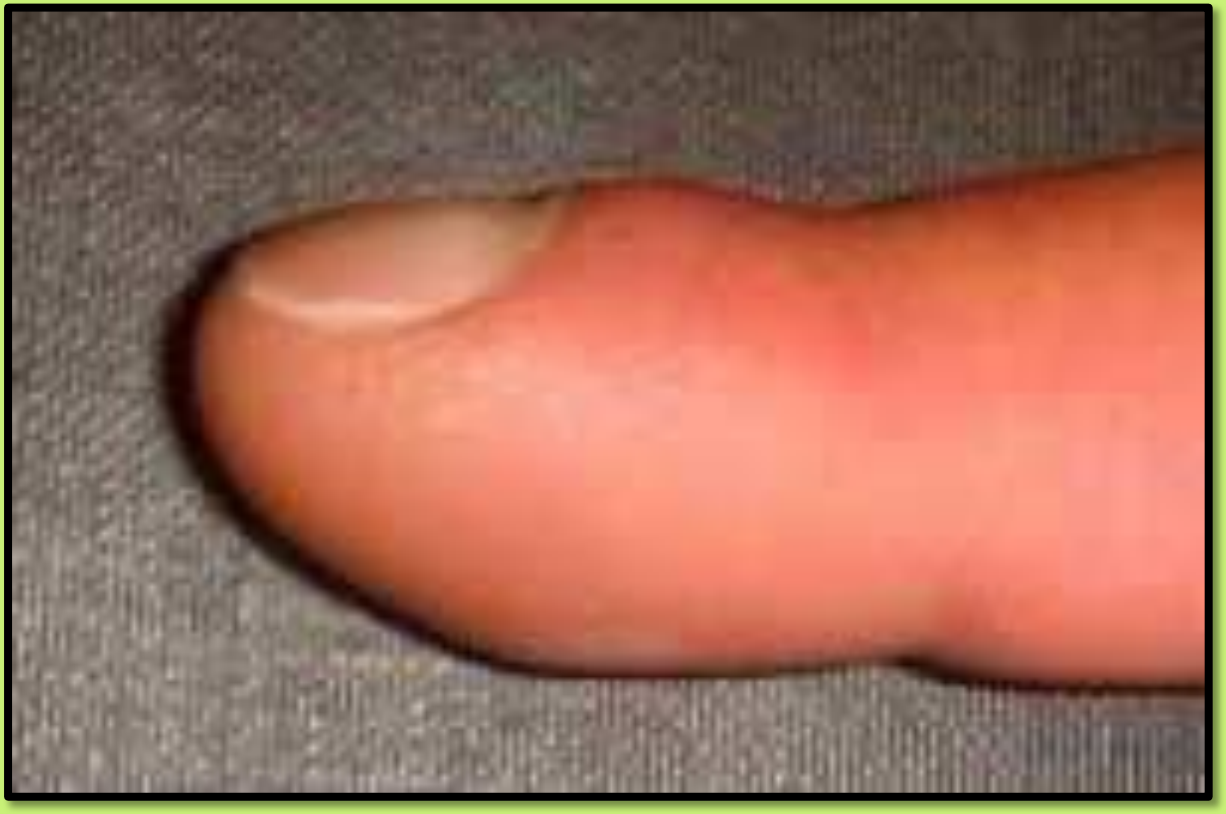
- Bronchogenic Ca .
- hypercalcemia.

Q3: Hx. of patient with bronchogenic carcinoma, what is the cause of his constipation ?



Hypercalcemia.

Q7: Mention two respiratory causes for this condition?

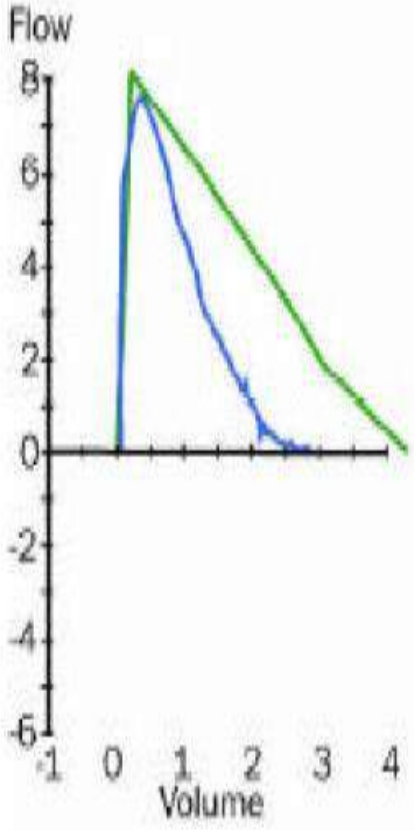


Cystic Fibrosis, Bronchiectasis , Lung Carcinoma, …

A. What is the ventilator defect?
B. Most likely Dx?
C. Other cause?

Age: 49 Height (cm): 167 Weight (kg): 146.5 BMI: 52.53 Gender: male

	Ref	Pre Meas	Pre %Ref	Post Meas	Post % Chg	CI	LLN
FEV_1 (L)	3.24	2.27	70			1.00	
FVC (L)	4.30	**2.85	**66			1.36	
FEV_1/FVC %	75	80					
PEF (L/sec)	8.05	7.59	94			3.87	
FEF25-75 (L/sec)	4.09	2.72	67			2.67	
FET100% (sec)		14.86					
FEV_6	4.23	2.69	64				3.43
FEV_1/FEV_6	80	84					72



A. Restrictive lung disease
B. Lung Fibrosis
C. Sarcoidosis

Q6: What's the Dx. depending on this pulmonary function test?

Age: 59	Height (cm): 172		Weight (kg): 92.0		BMI: 31.10	Gender: male
	Ref	**Pre Meas**	**Pre %Ref**	**Post Meas**	**Post % Chg**	**CI**	**LLN**
FEV_1 (L)	3.11	**2.00	**64	2.85	42	1.00	
FVC (L)	4.35	3.40	78	4.10	21	1.36	
FEV_1/FVC %	72	59		69			
PEF (L/sec)	8.17	4.45	54	6.81	53	3.87	
FEF25-75 (L/sec)	4.06	**1.23	**30	2.24	82	2.67	
FET100% (sec)		7.46		10.62	42		
FEV_6	4.22	3.40	81	3.97	17		3.34
FEV_1/FEV_6	79	59		72			70

Obstructive Lung Disease (Asthma).

Q6: what is the most likely Dx?

Gender: Male
Age: 49 Race: Caucasian
Height(in): 70 Weight(lb): 211
Any Info:

Date: 03/21/07
Temp: 20 PBar: 712
Physician: D.Musa Malkawi
Technician: R.T RAED BASHTAWI

Spirometry	(BTPS)		PRE-RX		POST-RX		
		PRED	BEST	%PRED	BEST	%PRED	% Chg
FVC	Liters	4.57	4.52	99	4.59	100	2
FEV1	Liters	3.70	2.34	63	2.75	74	17
FEV1/FVC	%	78	52		60		
FEF25-75%	L/sec	4.03	1.07	27	1.56	39	46
FEF50%	L/sec	4.84	1.34	28	1.84	38	37
PEF	L/sec	8.93	4.61	52	5.92	66	28
MVV	L/min						

Most likely obstructive lung disease.

Q12: 35 YOfemale, known case of AF, on amiodarone. Chiefly complaining of dyspnea.

FEV1\FVC >80%, FVC 60%, TLC 55%, DLCO low.

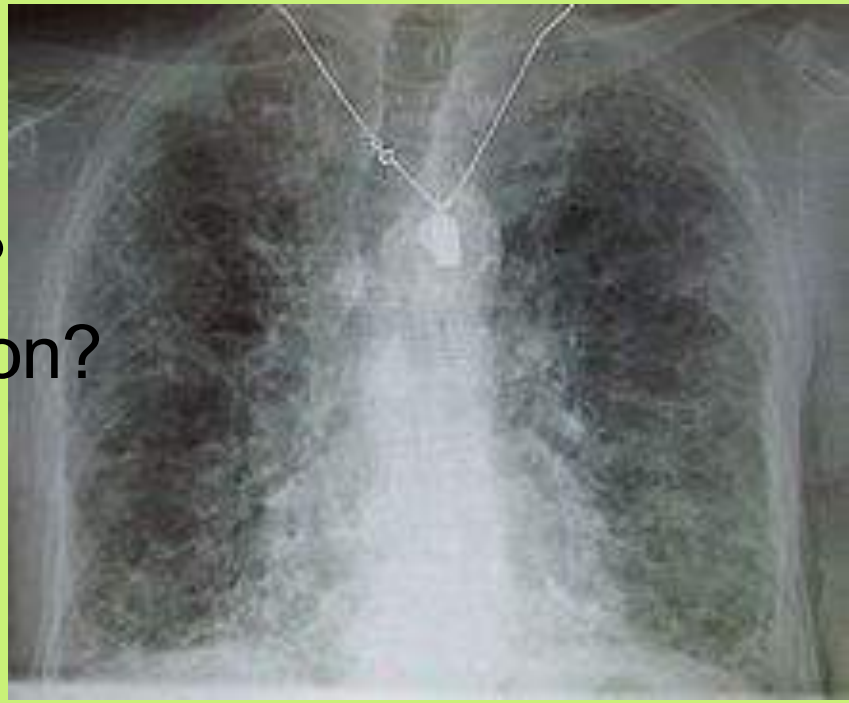
1. what is this ventilatory pattern?

2. what is the cause of her dyspnea?

1. **Restrictive pattern.**
2. Amiodarone induced lung fibrosis.

30 year old female patient, presented with progressive SOB over the last 3 months. On examination she has clubbing, raised JVP & lower limb edema. There was ABG result & PFT results.

1. What's your diagnosis?
2. what's the best diagnostic test?
3. what's the cause of her condition?
4. Interpretation for ABG?
5. interpretation for PFT?



1. Right sided heart failure.
2. Biopsy.
3. Pulmonary fibrosis.
4. Respiratory Alkalosis.
5. Restrictive lung disease.

A 55 year old male patient presented with progressive SOB for 3 months. On examination he had raised JVP, lower limb oedema, & clubbing. And this is his chest Xray. Lab results:

- ABG: pH 7.46 / CO2 30 / O2 60
- PFT: FEV/FVC 90 / FVC 60

1. What is the Dx?
2. What is the Acid base abnormality in his ABGs?
3. What is the interpretation of his ABG?
4. What is the interpretation of his spirometry?
5. What is the treatment?

1. Idiopathic pulmonary fibrosis with cor pulmonale.
2. Chronic respiratory alkalosis.
3. Hypoxia without hypercapnia (Type I respiratory failure).
4. Restrictive lung disease.
5. Supportive measures, O2 supplement.

Case #2

(the history was about acute asthmatic exacerbation , the following are the main points):

27 YO pt presented with SOB associated with fever, chills & cough with yellow sputum, the patient was unable to talk & uses his accessory muscles, RR=30, BP = 100/70, T=39.5 , he had Hx. of previous attacks.

1. Mention 2 signs indicating the severity from Hx.
2. Mention 3 lines of management.

- patient was unable to talk & BP = 100/70.
- **Initial Management of Asthma Exacerbation:**

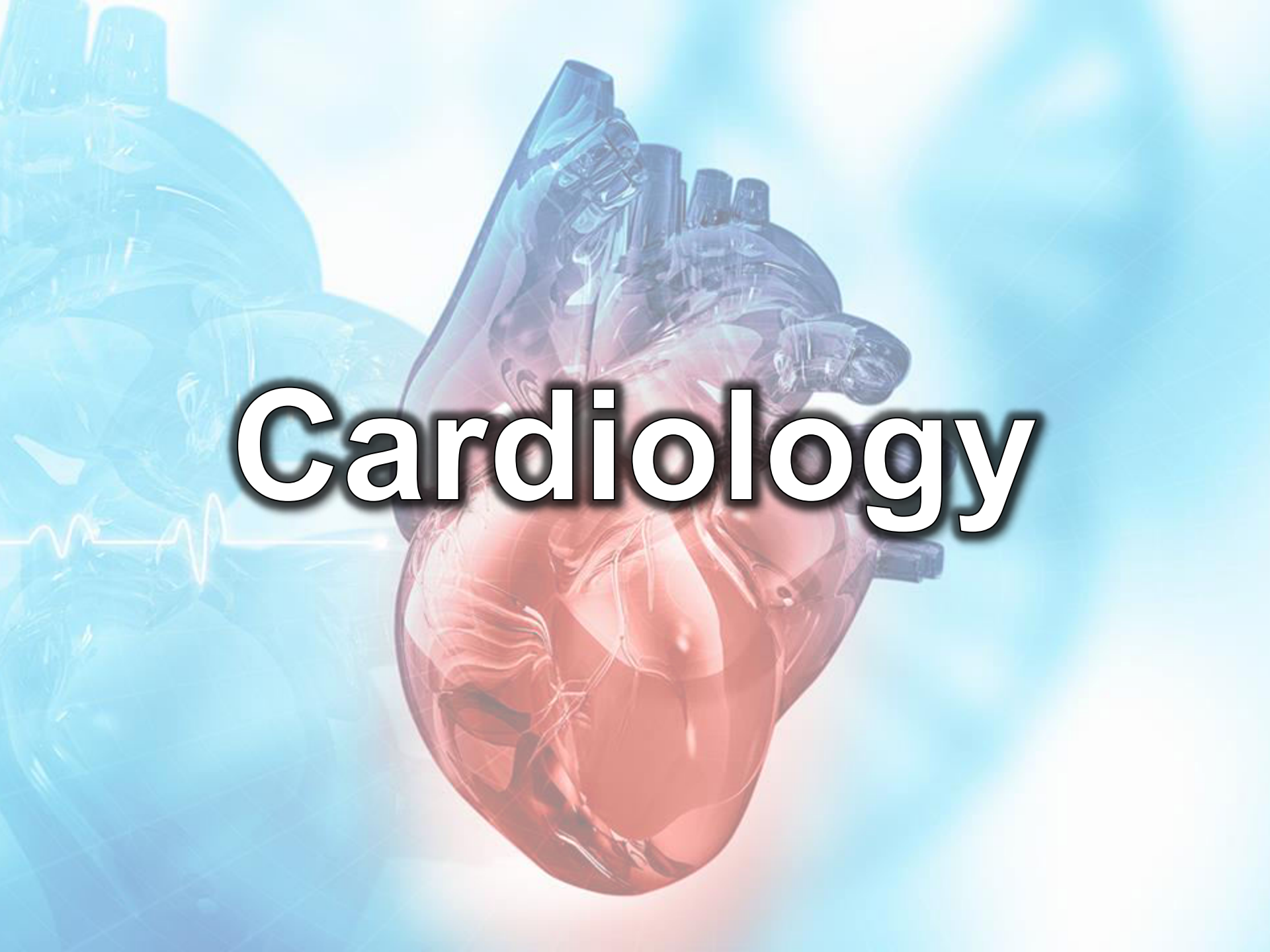
1. Oxygen therapy to maintain O_2 saturation of 94-98%.
2. Nebulized B_2-agonist (salbutamol 5mg or terbutaline 10mg).
3. Systemic corticosteroids (oral prednisolone 30-60mg or IV hydrocortisone 200mg).
4. Antibiotics if evidence of infection on chest X-ray, purulent sputum.
5. IV fluids if necessary.

Case #2

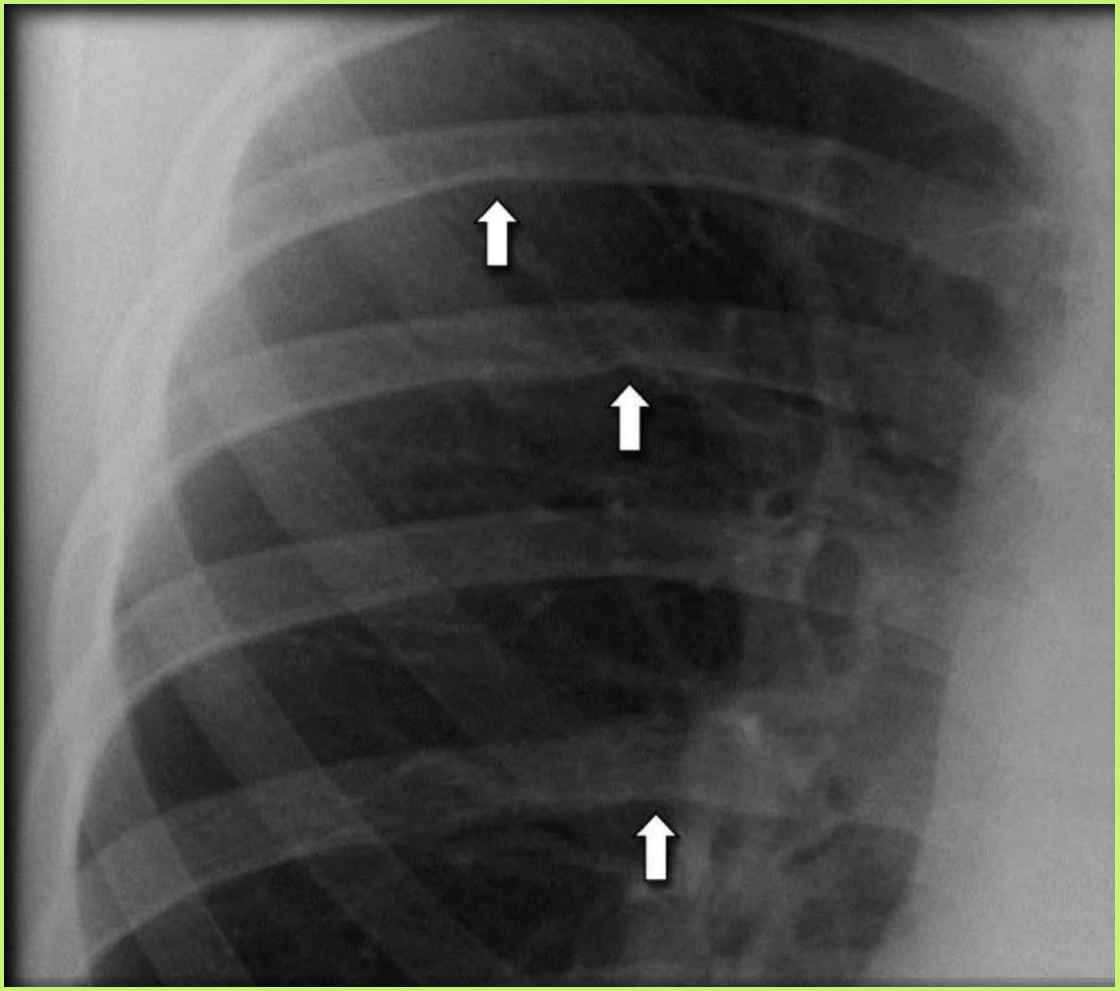
32 YO female pt, presented with sudden onset of dyspnea, she has Hx of pregnancy 2 weeks ago.

1. What is the most probable Dx? "2 marks"
2. Give 2 diagnostic tests for this pt?
3. What is the treatment?

1. Pulmonary embolism.
2. CTangio, D-dimer, V\Q scan.
3. LMWH (Anticoagulant).

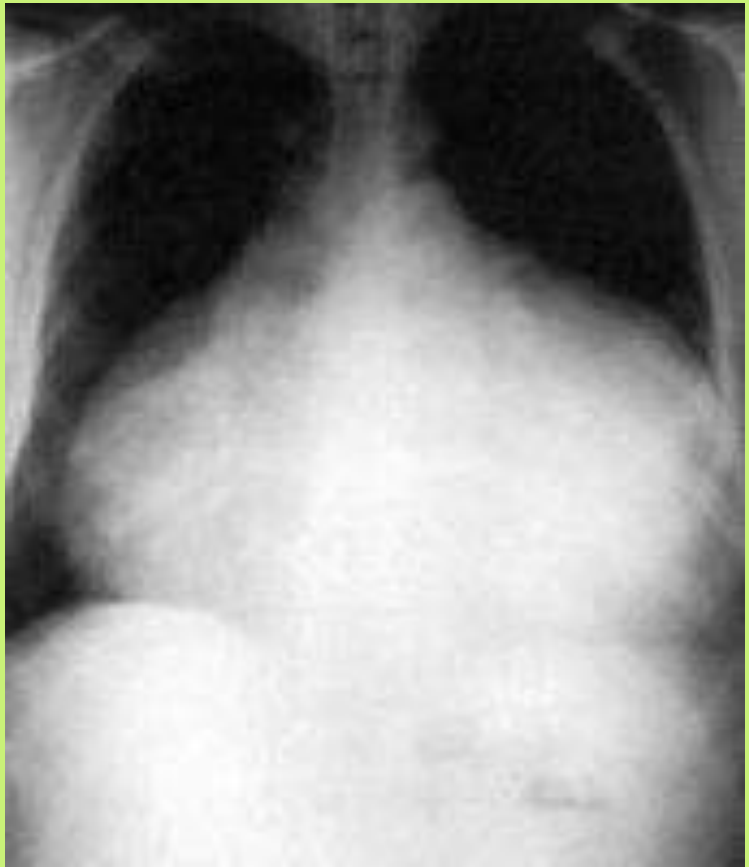

Cardiology

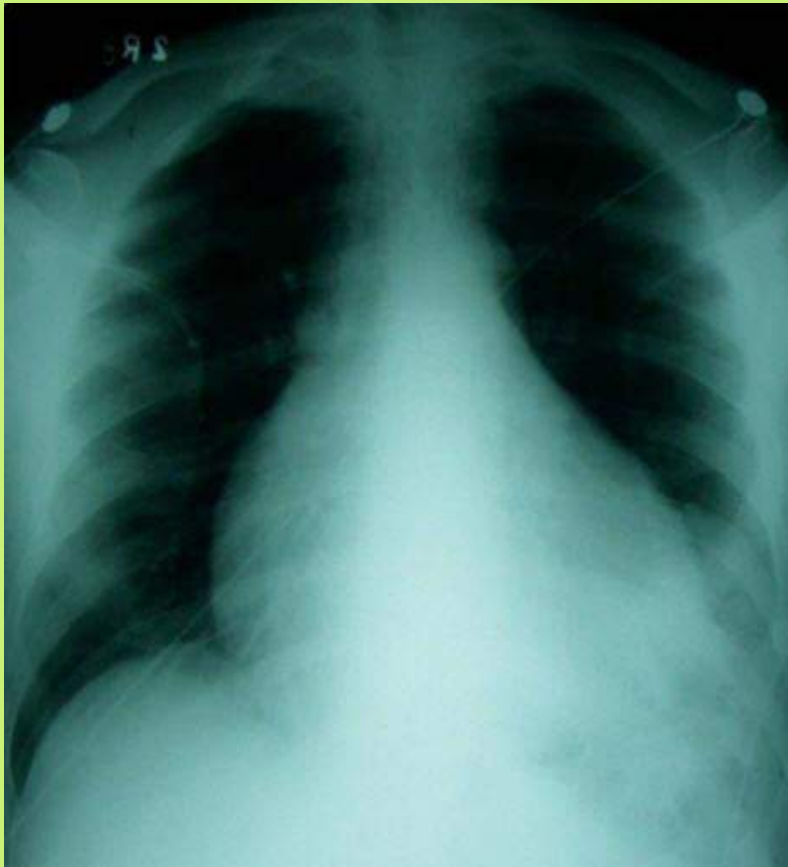
Q1: A 25-year old male with history of hypertension.
What is the radiological finding?



Rib notching sign (Coarctation of the aorta).

Q3: This CXR is for a pt who is a known case of chronic renal failure, presented with SOB, BP 85/60. sudden onset chest pain, Bp: 90\60 & dilated neck veins What's your Dx.?, what is your immediate Mx?



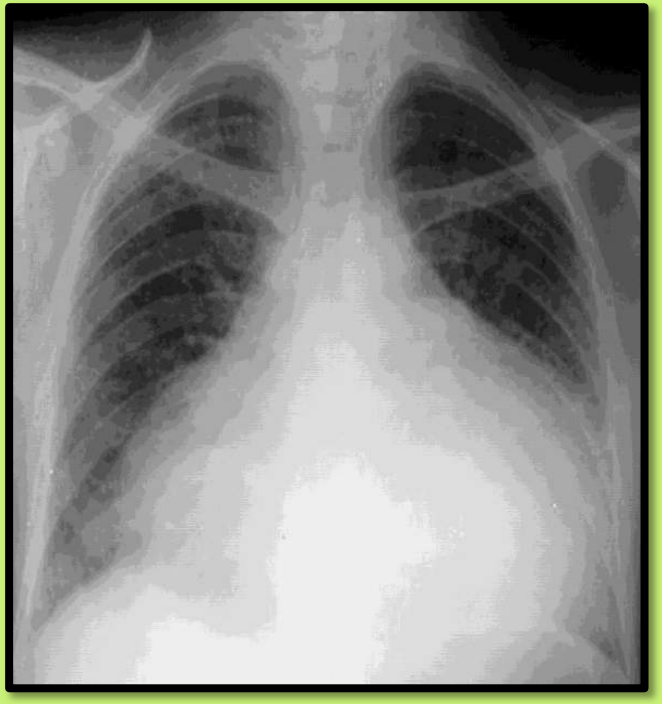


A. Cardiac Tamponade.

B. Precordiocentesis

Case #2

50 YO male pt presented to ER 1 hour ago complaining of chest pain, diagnosed as having acute anterior wall MI, while he's in the ER he suddenly collapse, BP=30/0, with raised JVP.



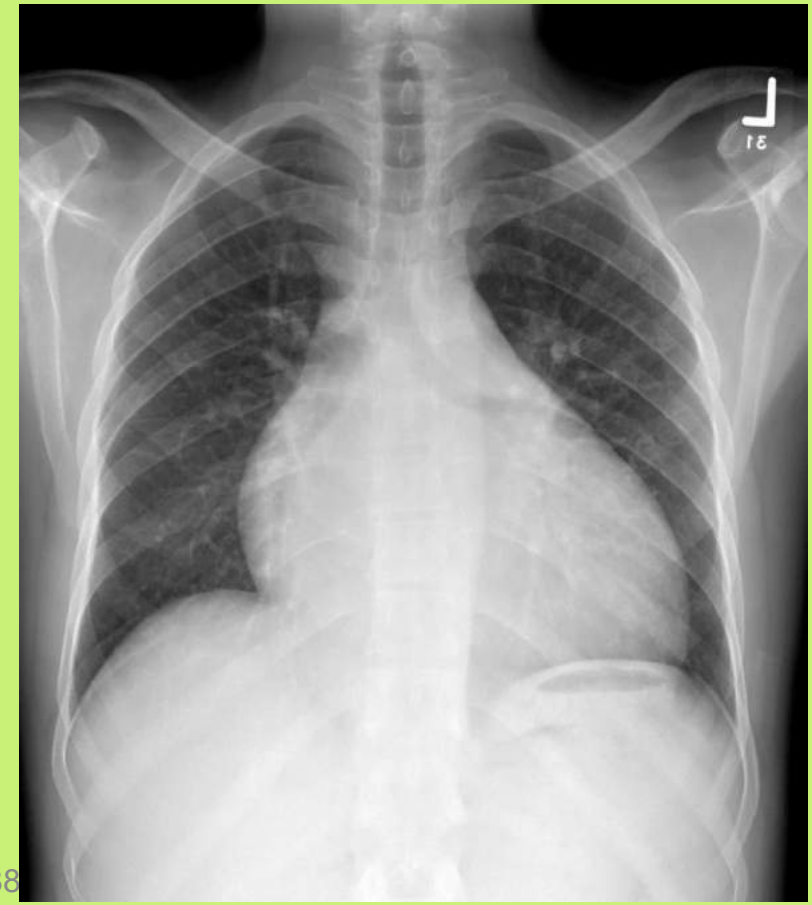
1 what's the Dx?

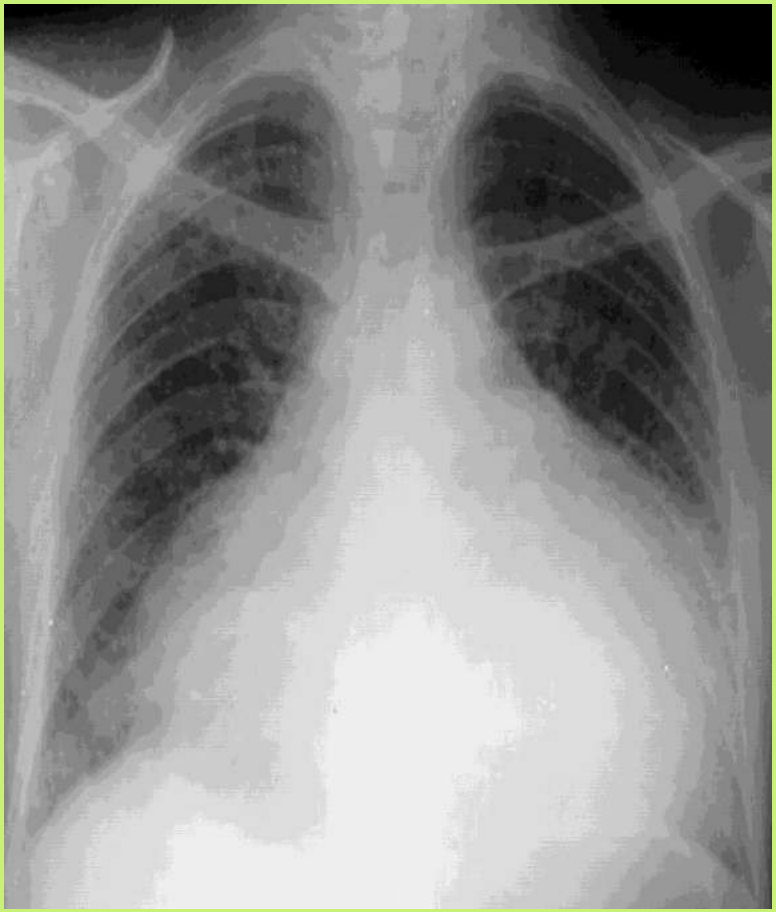
2 Mention the most important test.

3- what is the management.

1. cardiac tamponade.
2. ECGOR ECHO.
3. Pericardiocentesis.

This patient had SOB & chest pain for 2 weeks, and a normal blood pressure (130/80). What's your diagnosis?



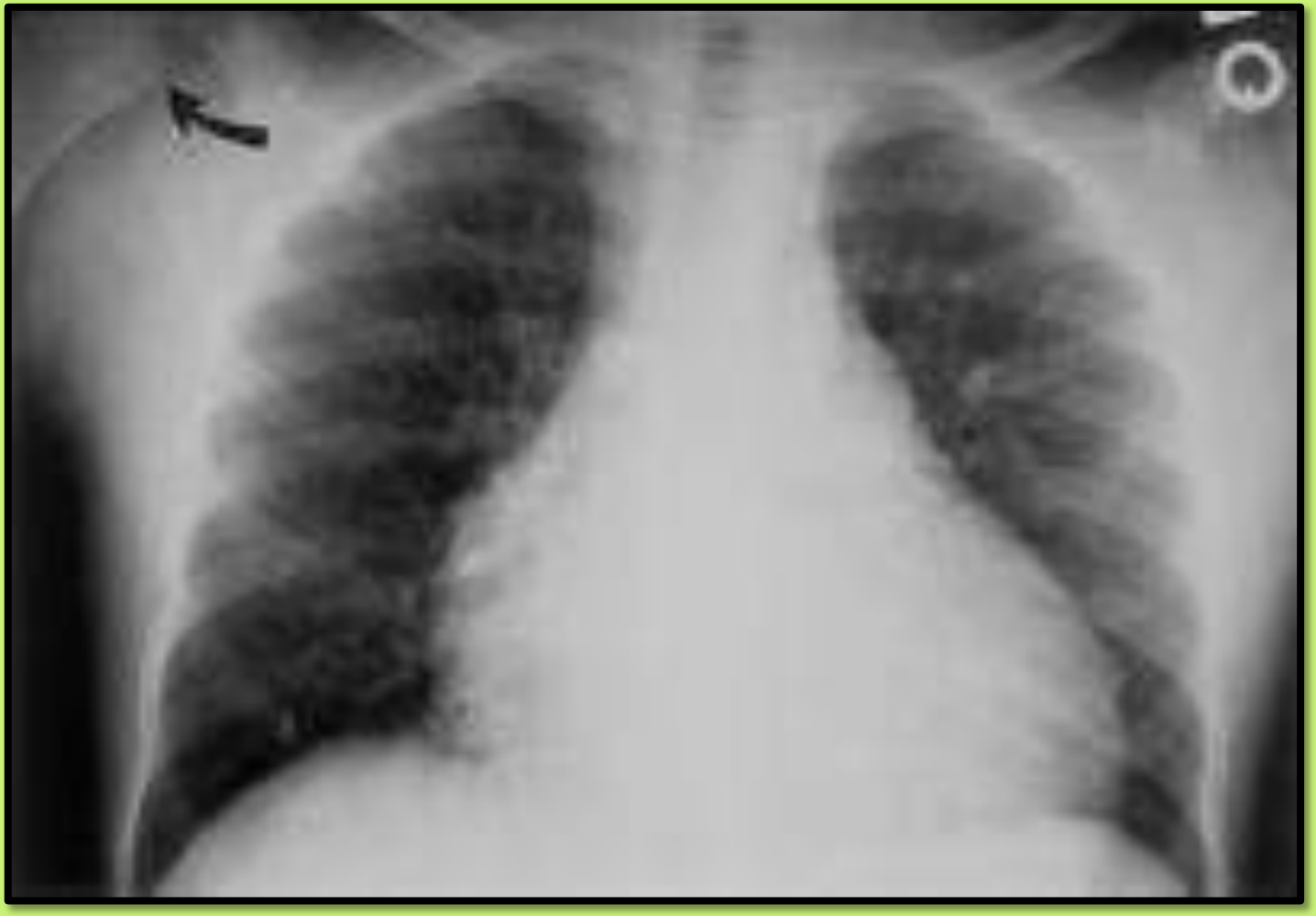


Pericardial effusion

(since the pt is stable – normal BP)

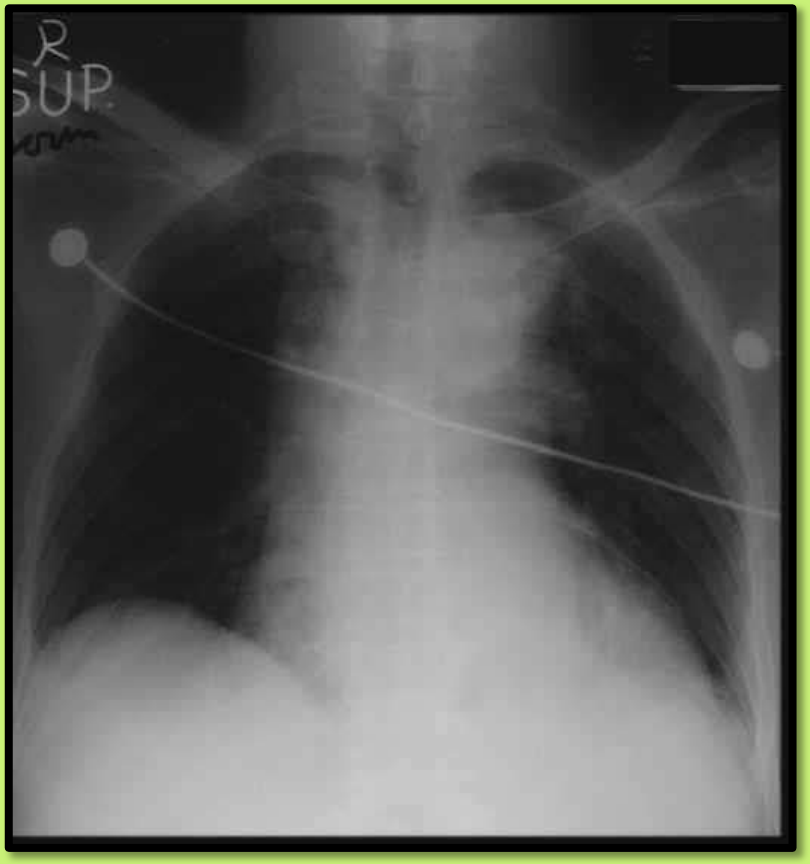
Note: A **pericardial effusion** with enough pressure to adversely affect heart function is called **cardiac tamponade**.

Q9: Write 3 Findings in this CXR.



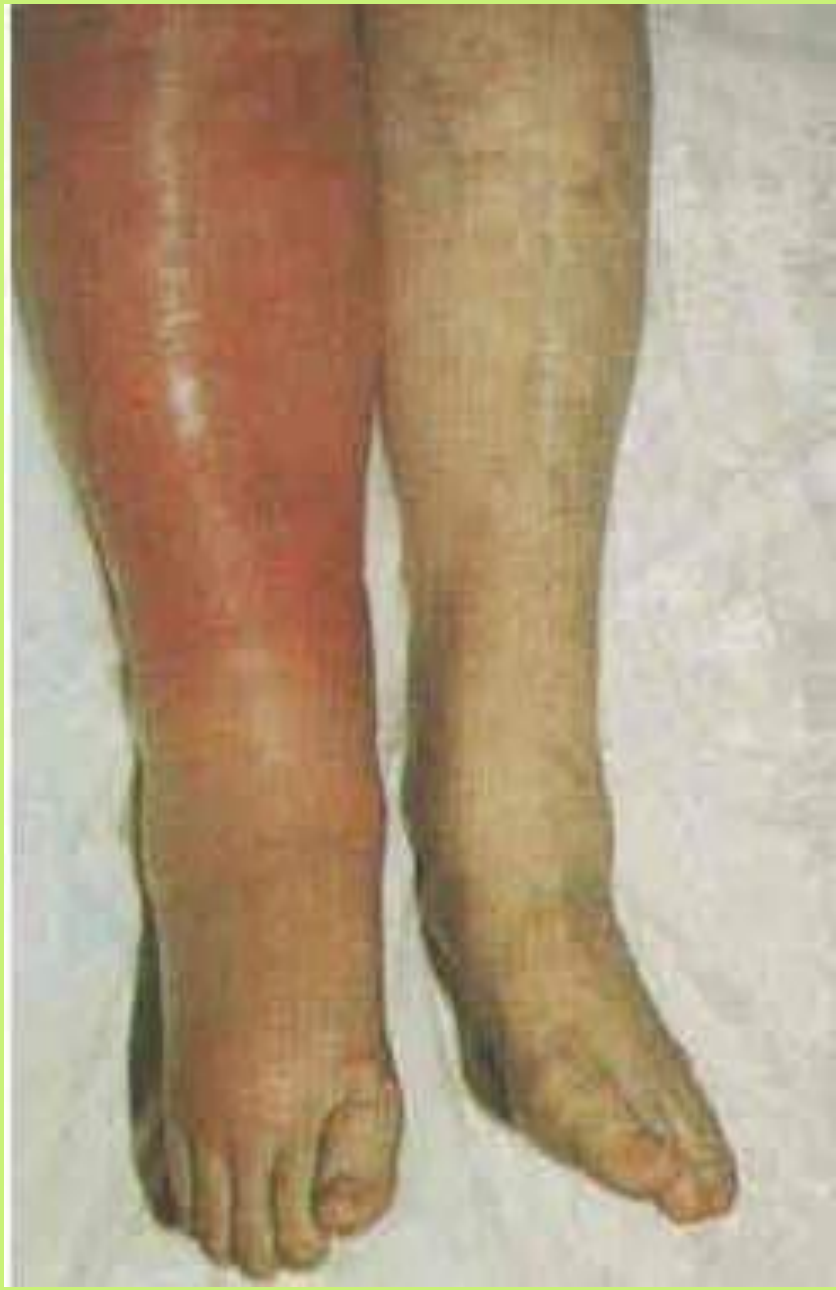
1. Cardiomegaly.
2. Pulmonary infiltration.
3. Right-tracheal deviation.

Q3: A pt presented to ER with severe chest pain. On P/E he had some Marfanoid features, & this was his Chest X-Ray. What is your Dx?



Dissecting Aortic Aneurysm.

This patient had unilateral lower limb swelling & redness and SOB, what is the cause? What's the investigation that you'll do to diagnose this case? Mention another cause of Unilateral lower limp swelling?

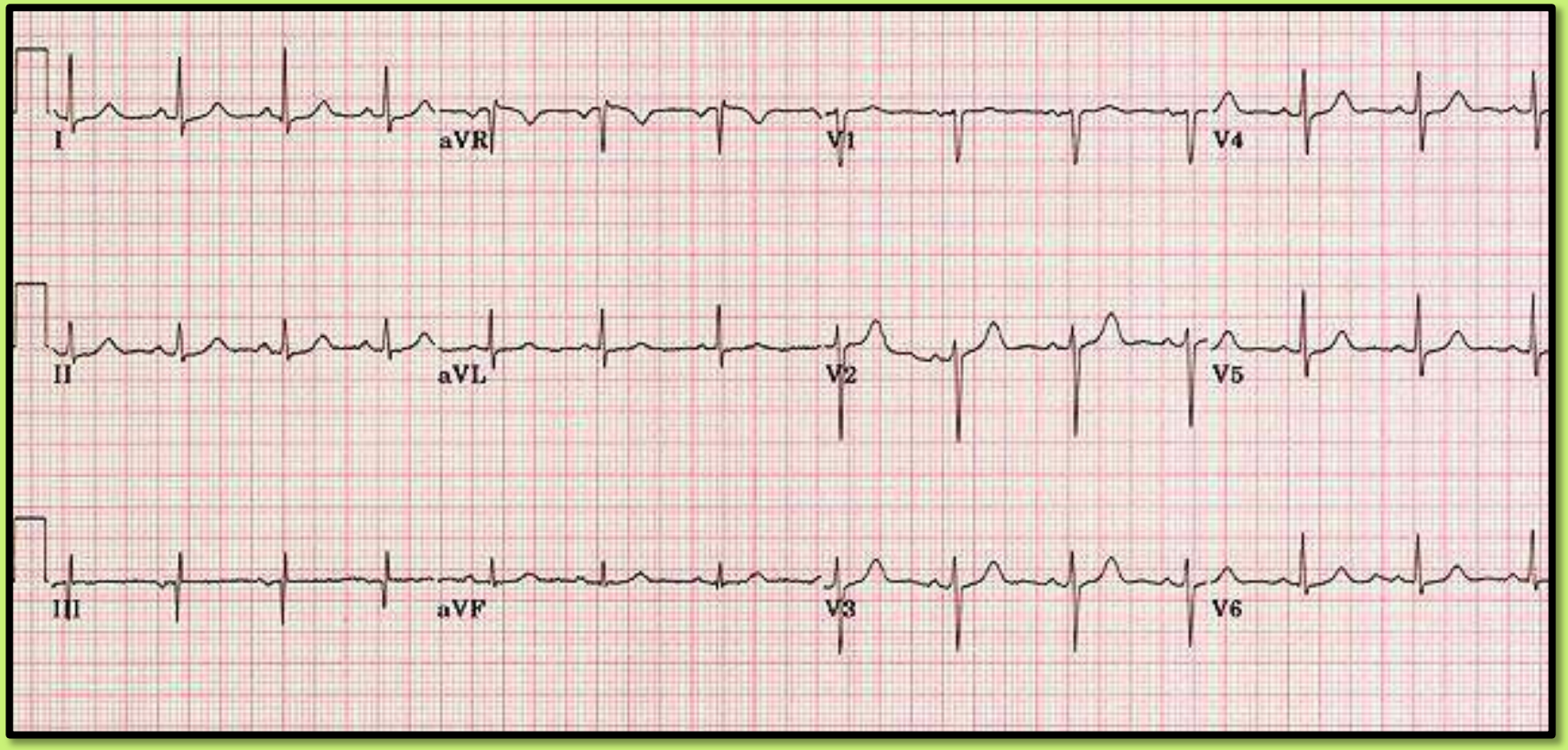


A. Pulmonaryembolism

B. CT-Angiography, Venous Doppler US

C. Cellulitis, Backer's cyst

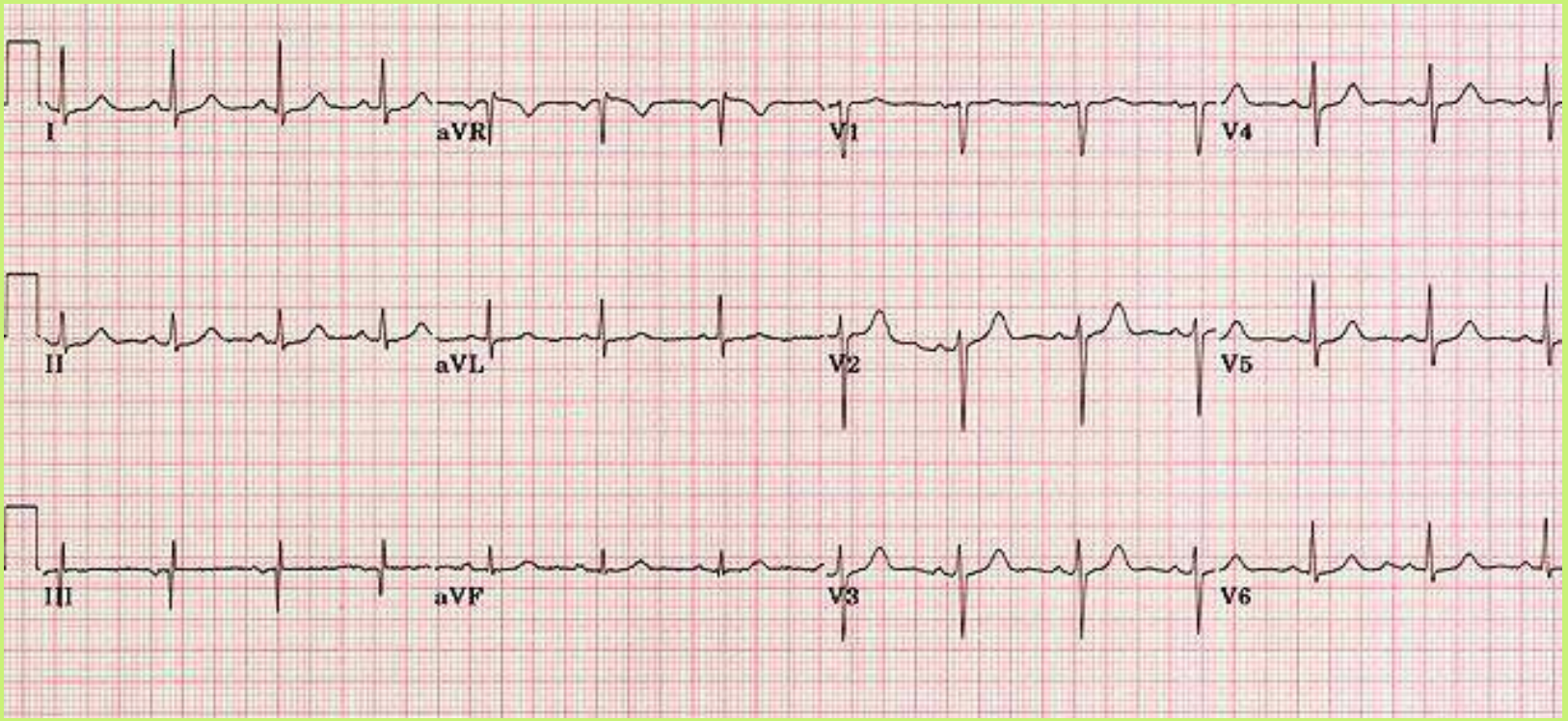
Q1: This is an ECG for a 22 YO male presented for a regular check-up. What is your interpretation?



Normal ECG.

Question #17

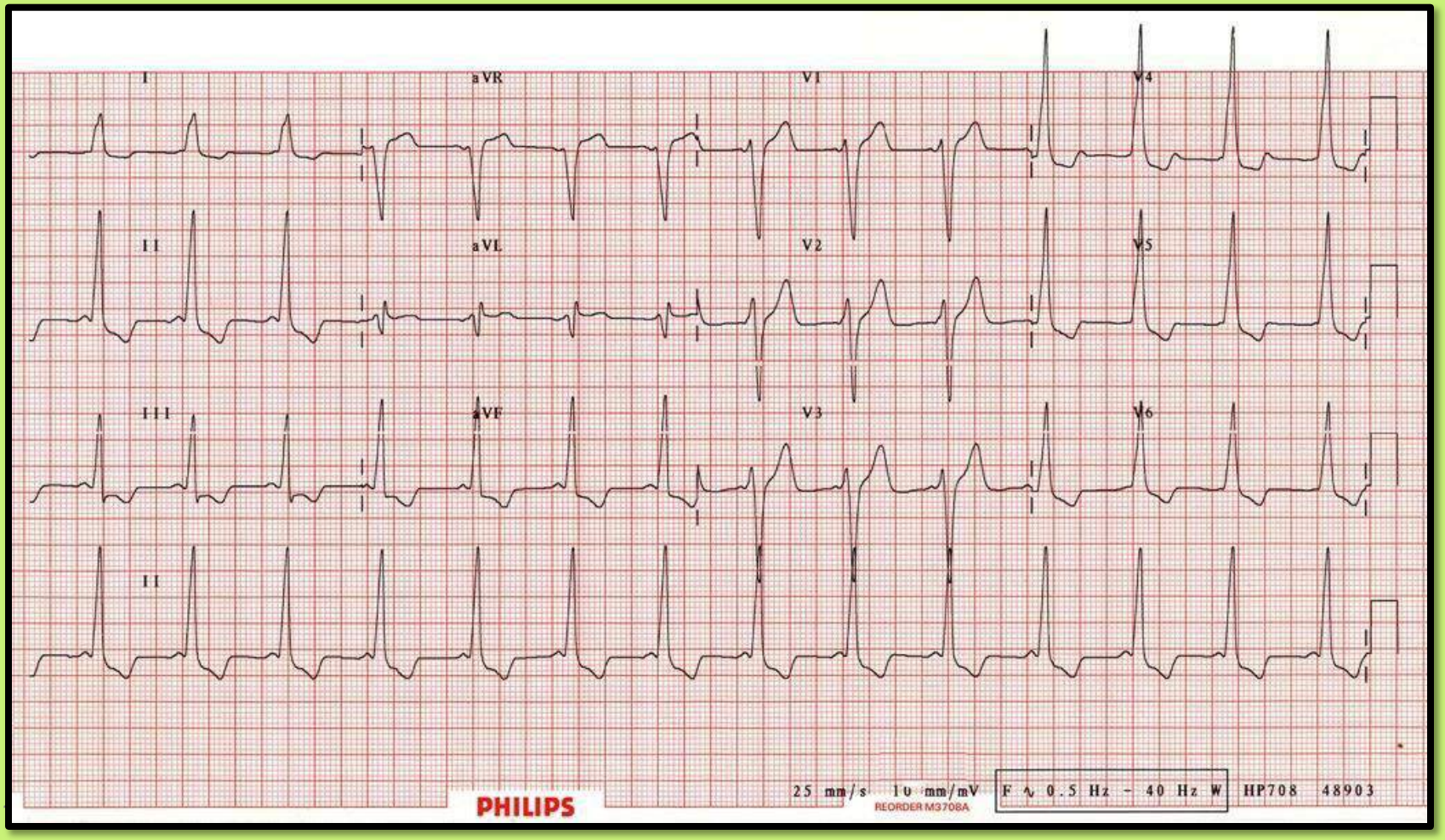
This young patient is a smoker, presented with inflammatory, submammary chest pain, what's your interpretation of this ECG?



Normal ECG

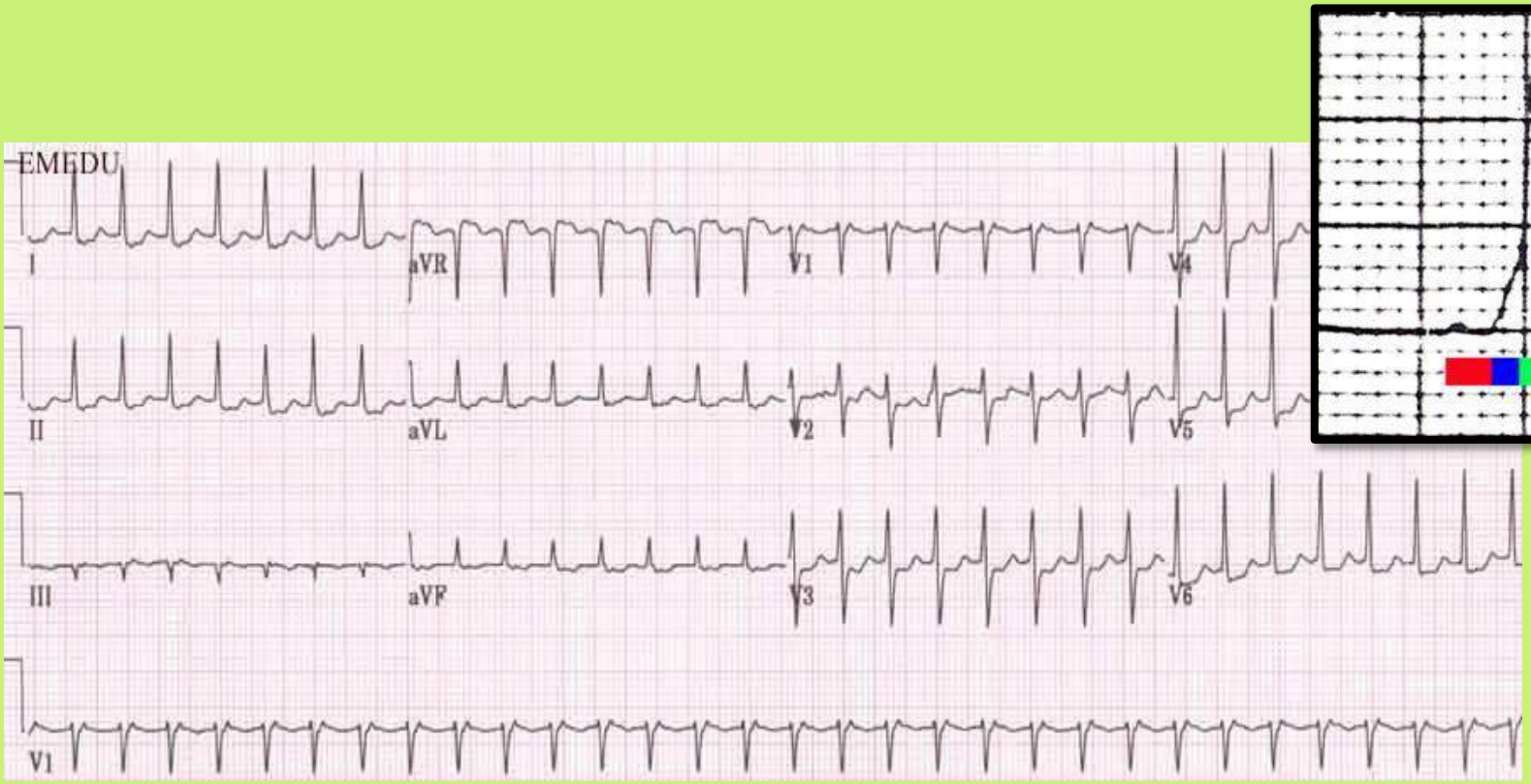
The ECG that we had in the exam wasn't so typically normal, a lot of the students thought that it had ST elevation in some of the leads.

Q13: Patient has episodes of palpitation, his ECG was like this, what is your Dx.?



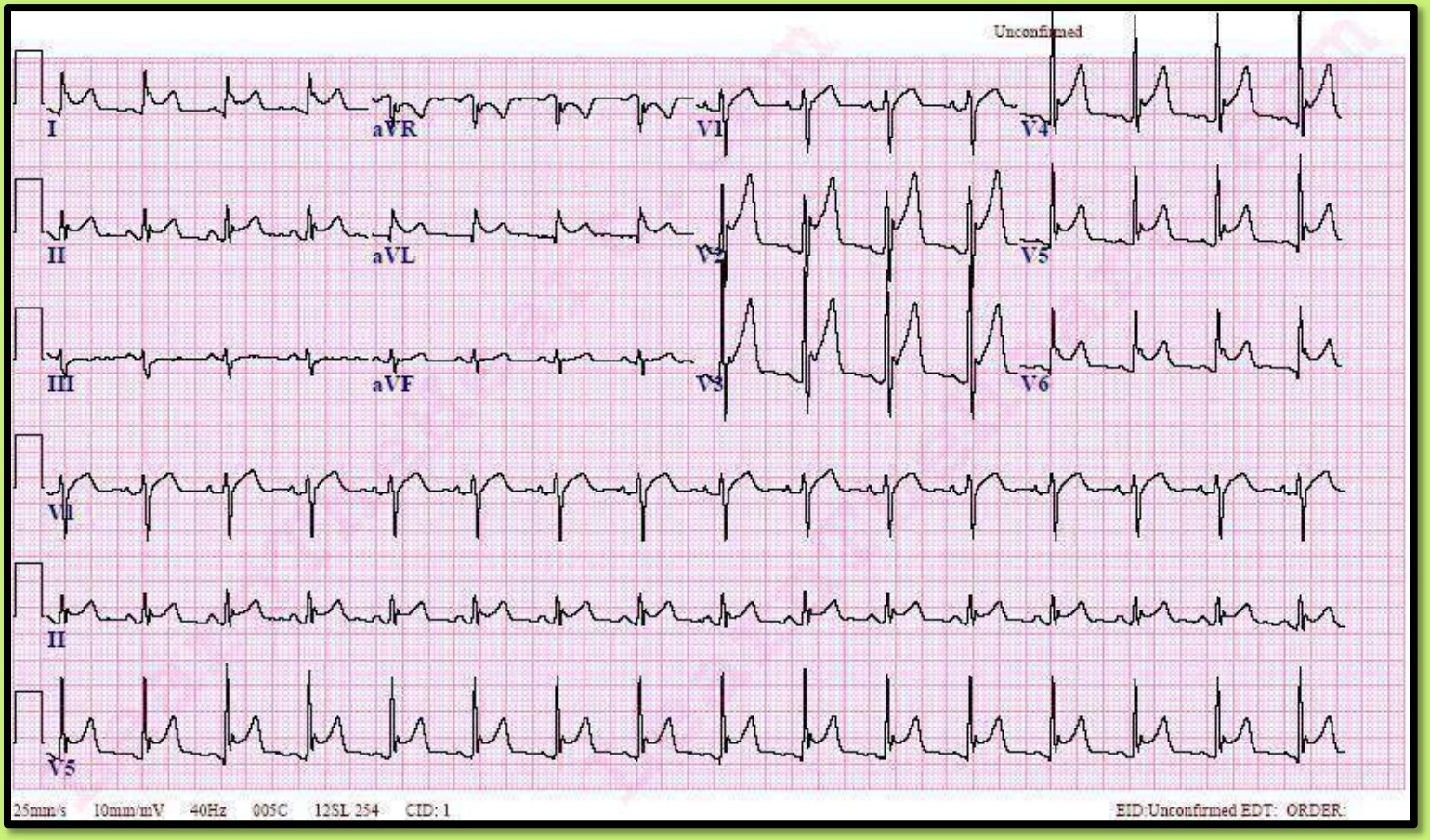
WPW syndrome.

Q4: 30 YO female pt presented to ER complaining of palpitation, What is the cause of her arrhythmia?



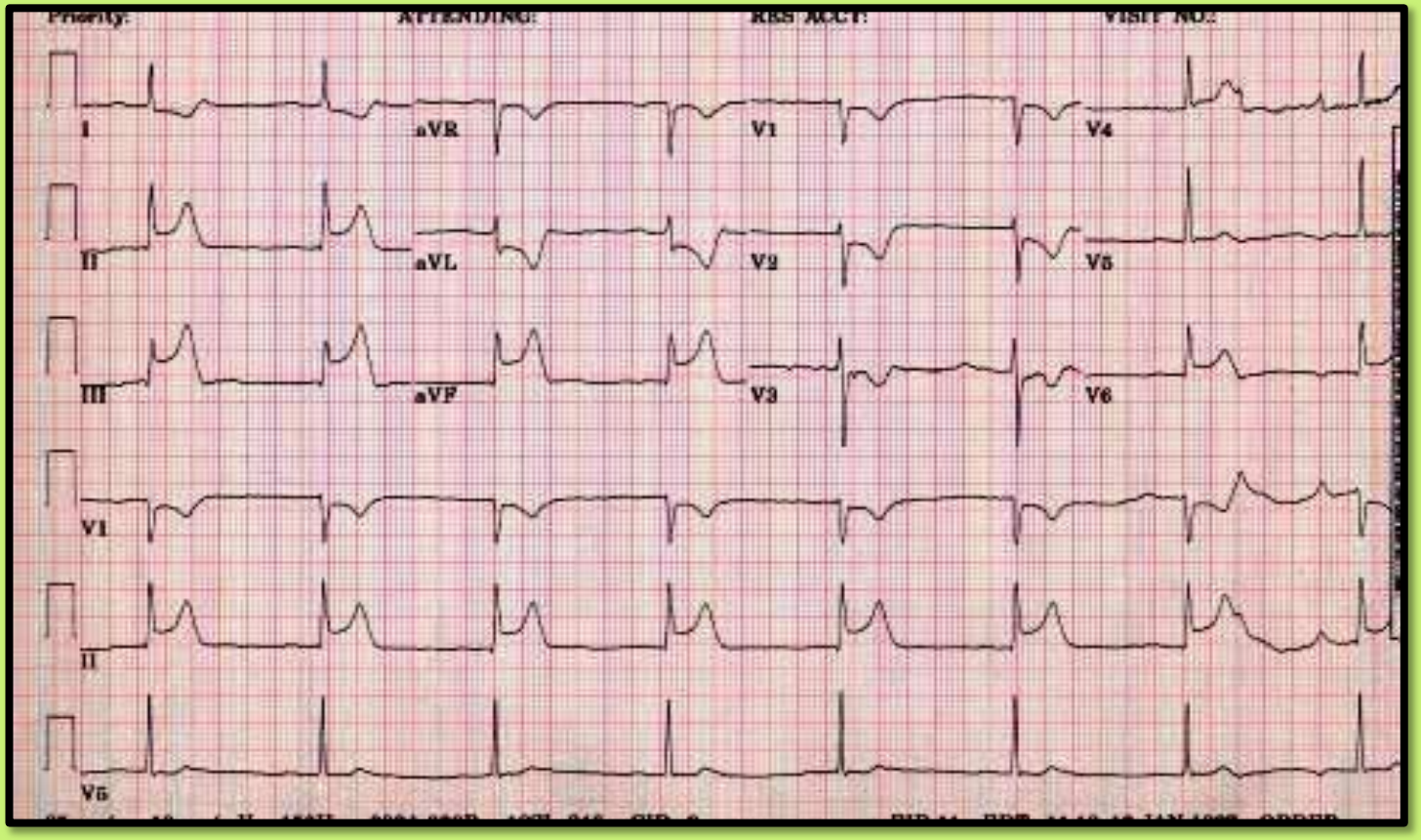
WPW’S ;
SVT

Q3: SLEpatient presented with central chest pain started acutely for 30 Minutes along with mild fever. What is the tt?



Treatment of pericarditis due to SLE: Colchicine, Bed rest & NSAIDs.

Q4: 70 YO male came with palpations & chest pain. Mention 2 abnormalities in this ECG., what is the sport Dx?

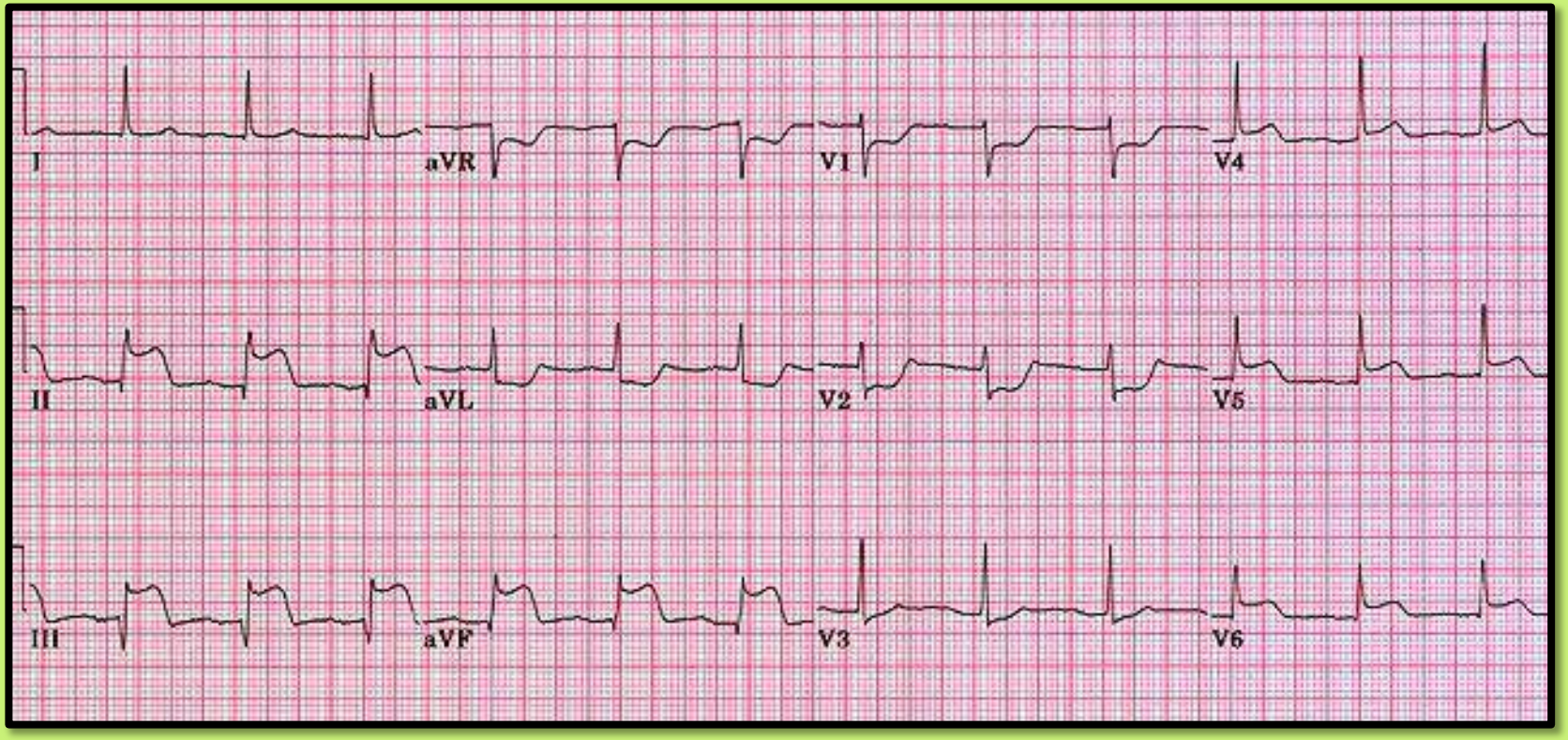


A.

1. ST elevation leads II, III, avF.
2. T-inversion in aVL.

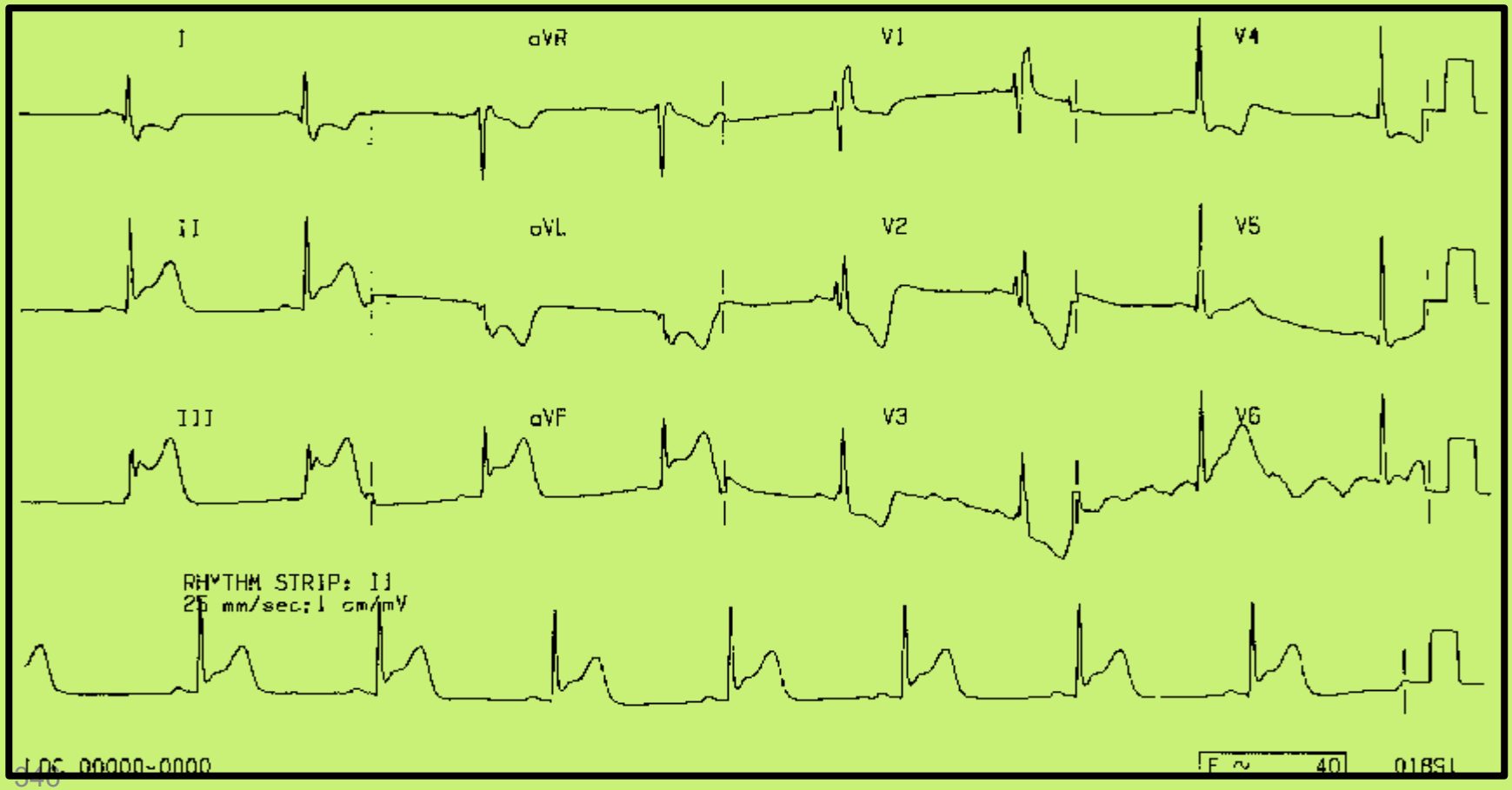
B. Acute inferior STEMI

Q2: Patient presented with chest pain. what is your diagnosis ?



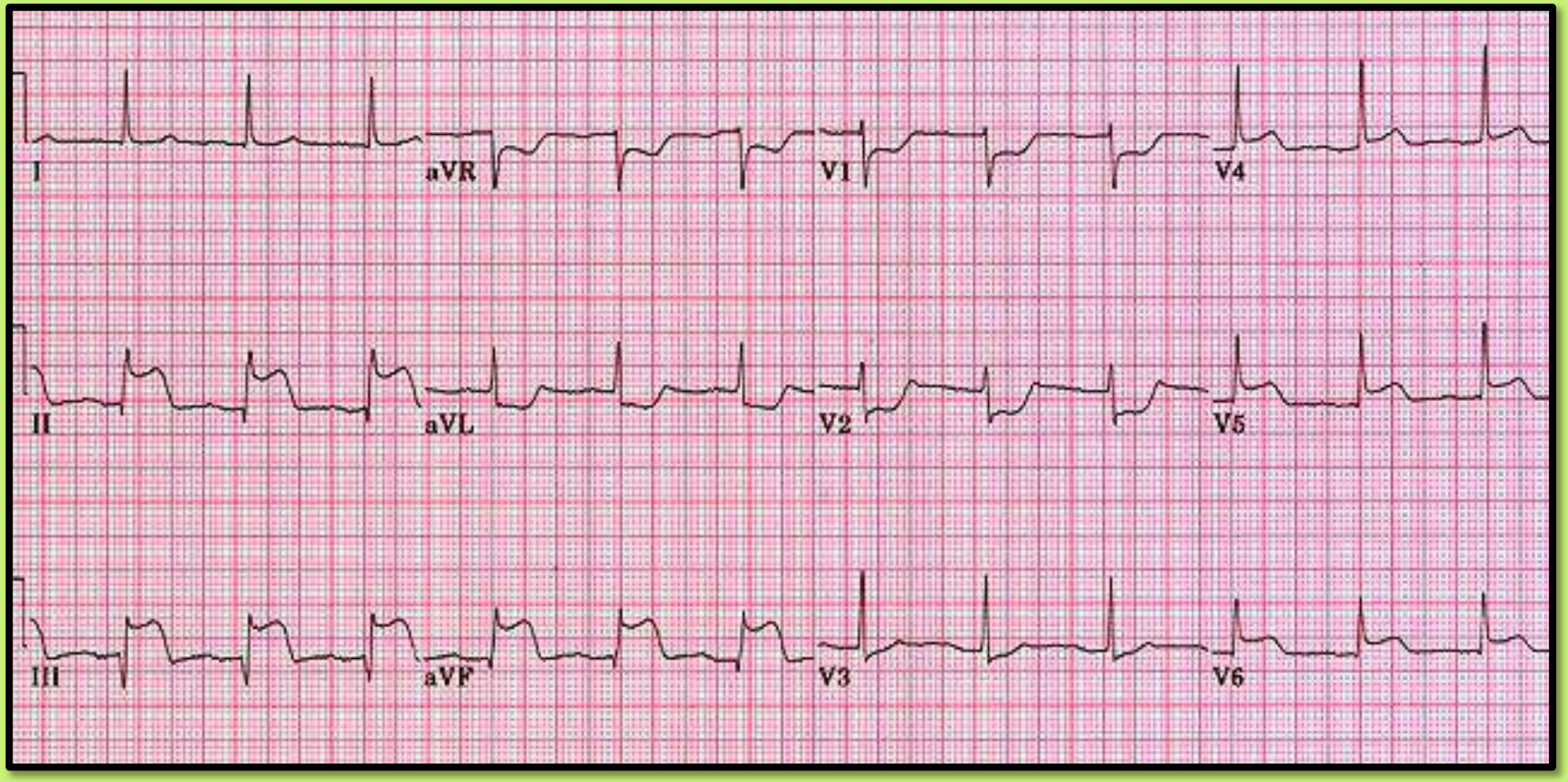
Acute inferior wall ST-elevation MI.

Q3: 60 YOmale pt, presented with acute chest pain for 30 minutes, what is the Dx? &What is your management for this pt?



Acute inferior wall myocardial infarction/Oxygen, sublingual nitrate, aspirin, IV morphine ,streptokinase.

Q5: 54 YO male pt, known case of DM, HTN, presented with acute chest pain, what is the Dx?



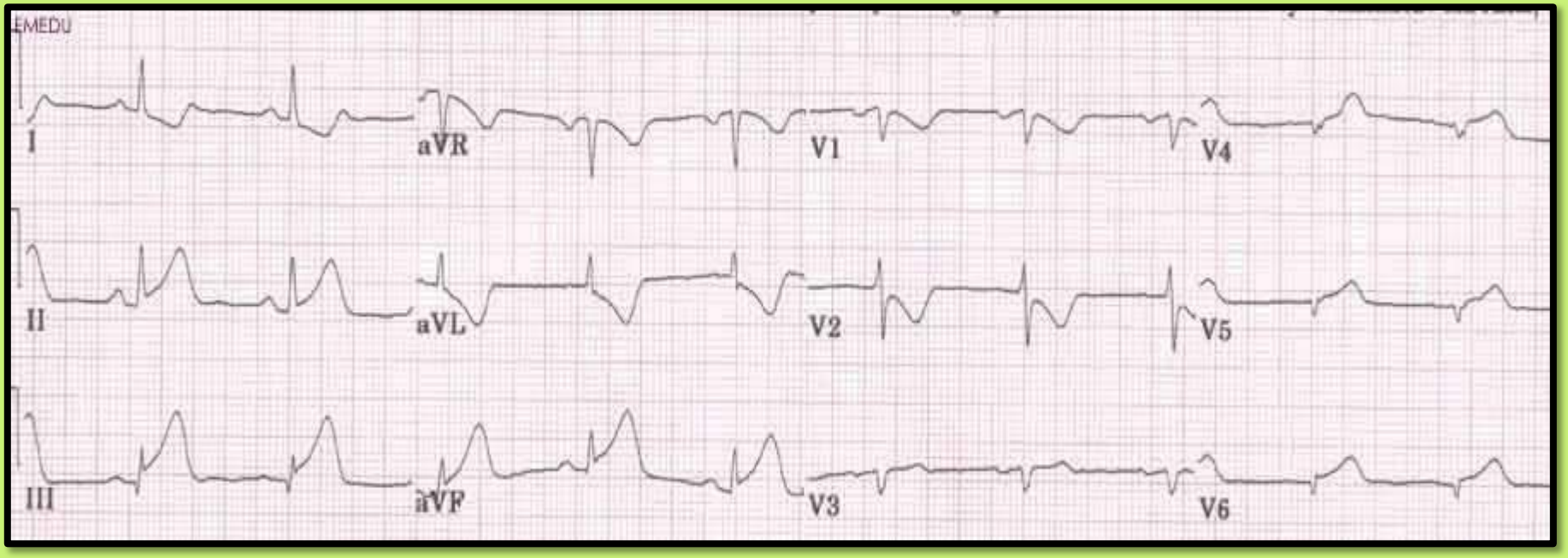
Acute st elevation inferior wall

mi acute, inferior wall , st

(if u miss anyone , ... elevated mi

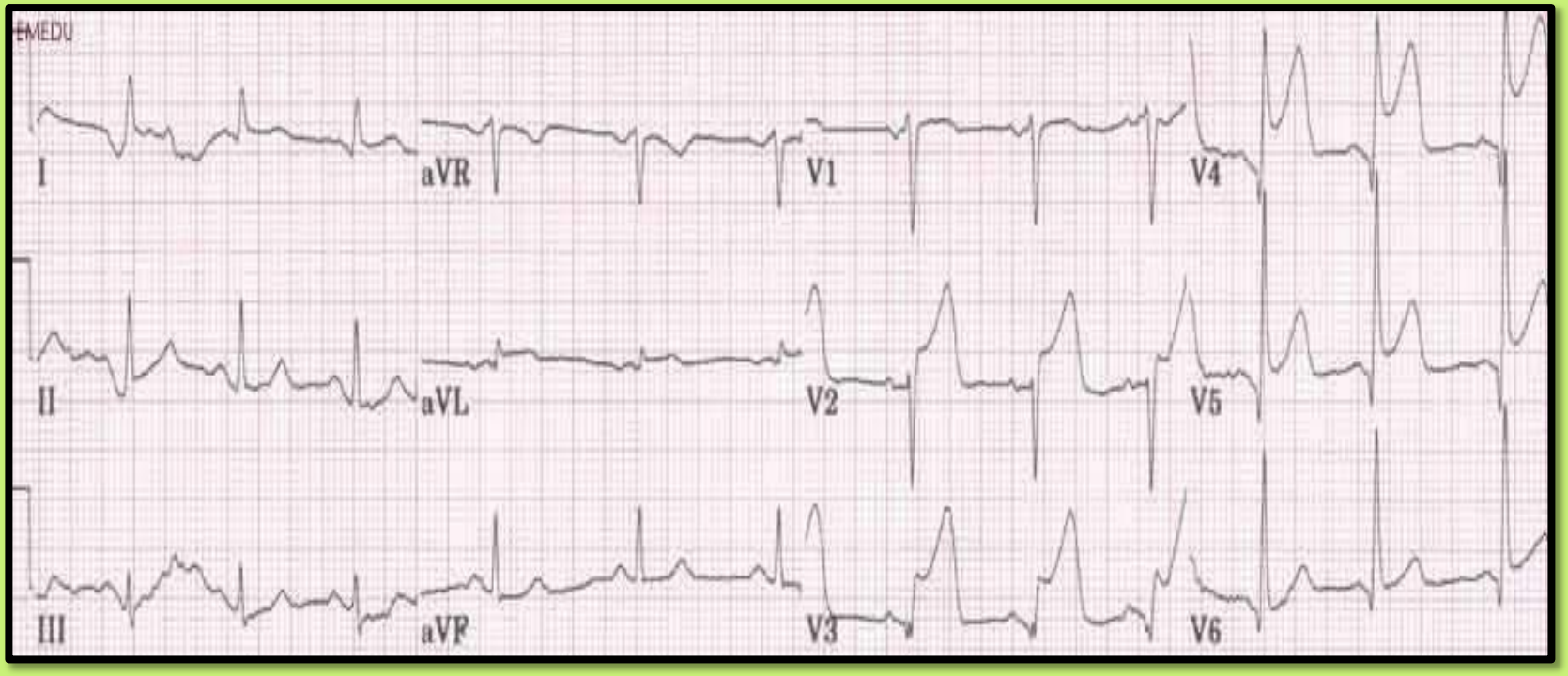
it will be considered wrong).

Q5: 55 YO male presented to ER complaining of chest pain of 30 min duration, with this ECG. What is the Dx?



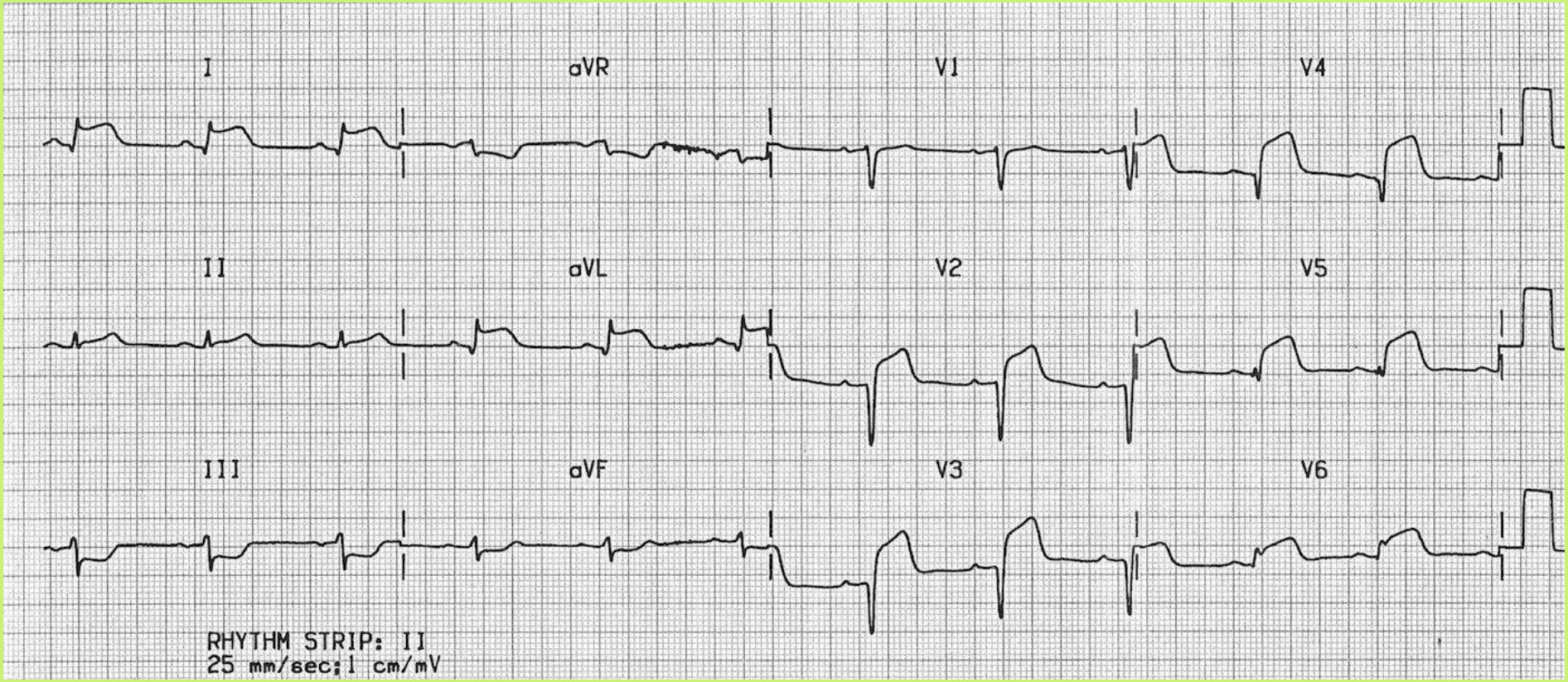
Acute ST elevation inferior wall MI (And it **must** be written like this).

Q2: This ECGis for a 48 YOpt, presented with chest heaviness, diaphoresis & nausea for 2 hrs. What is your Dx?



Acute Anterior wall (anteroseptal) STelevation MI.

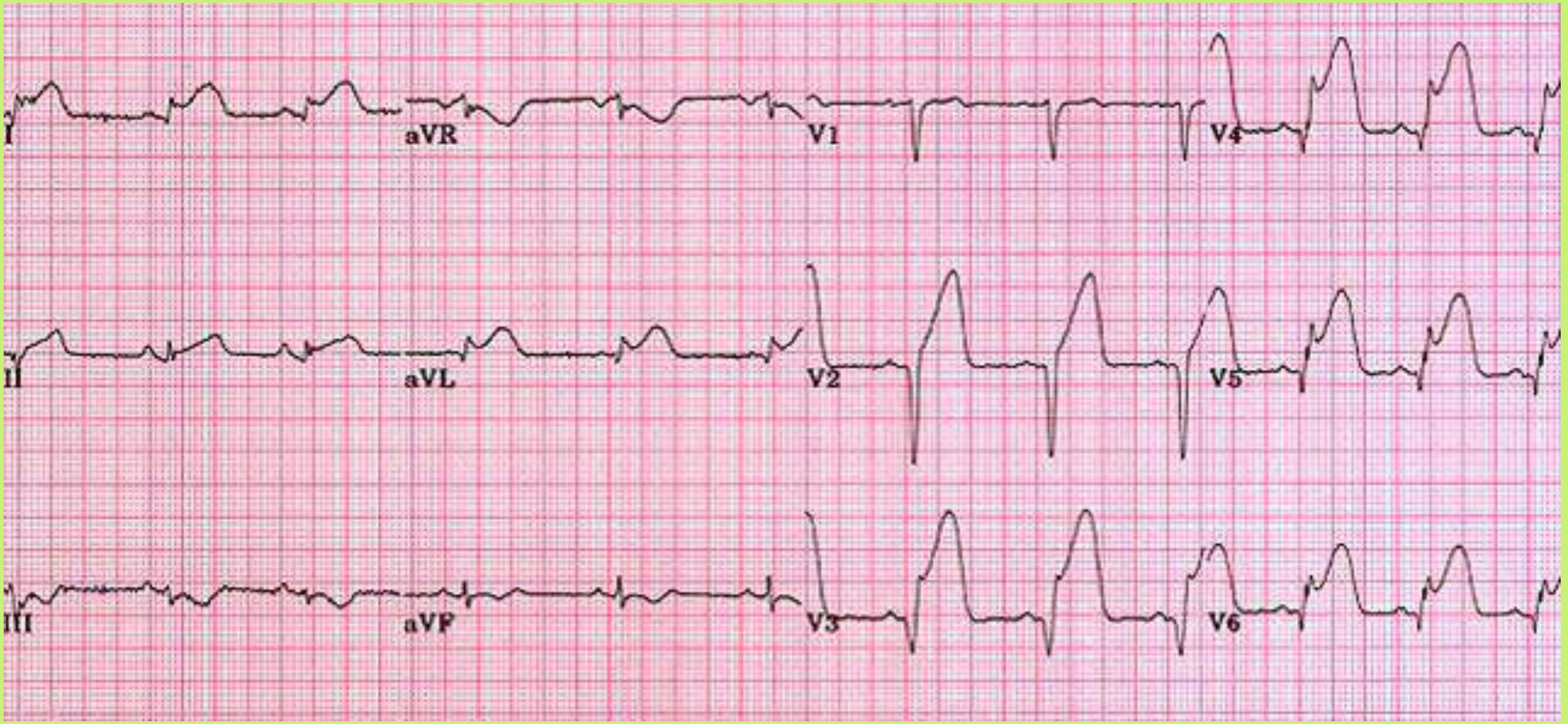
Q7: What is the diagnosis?



Acute ST-elevation Anterolaterl MI.

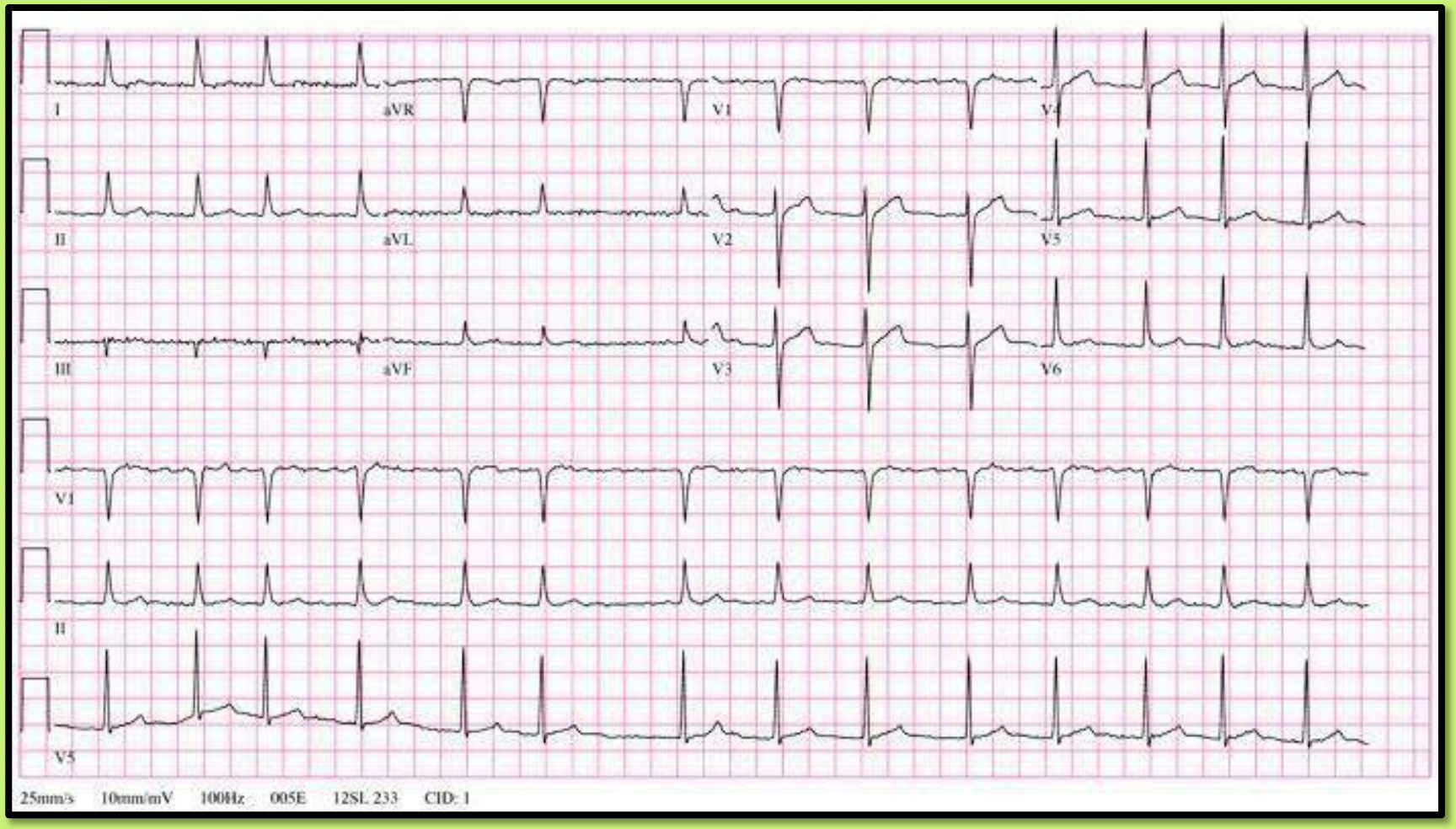
Question #18

This 40 year-old patient presented with chest pain, what's your diagnosis?



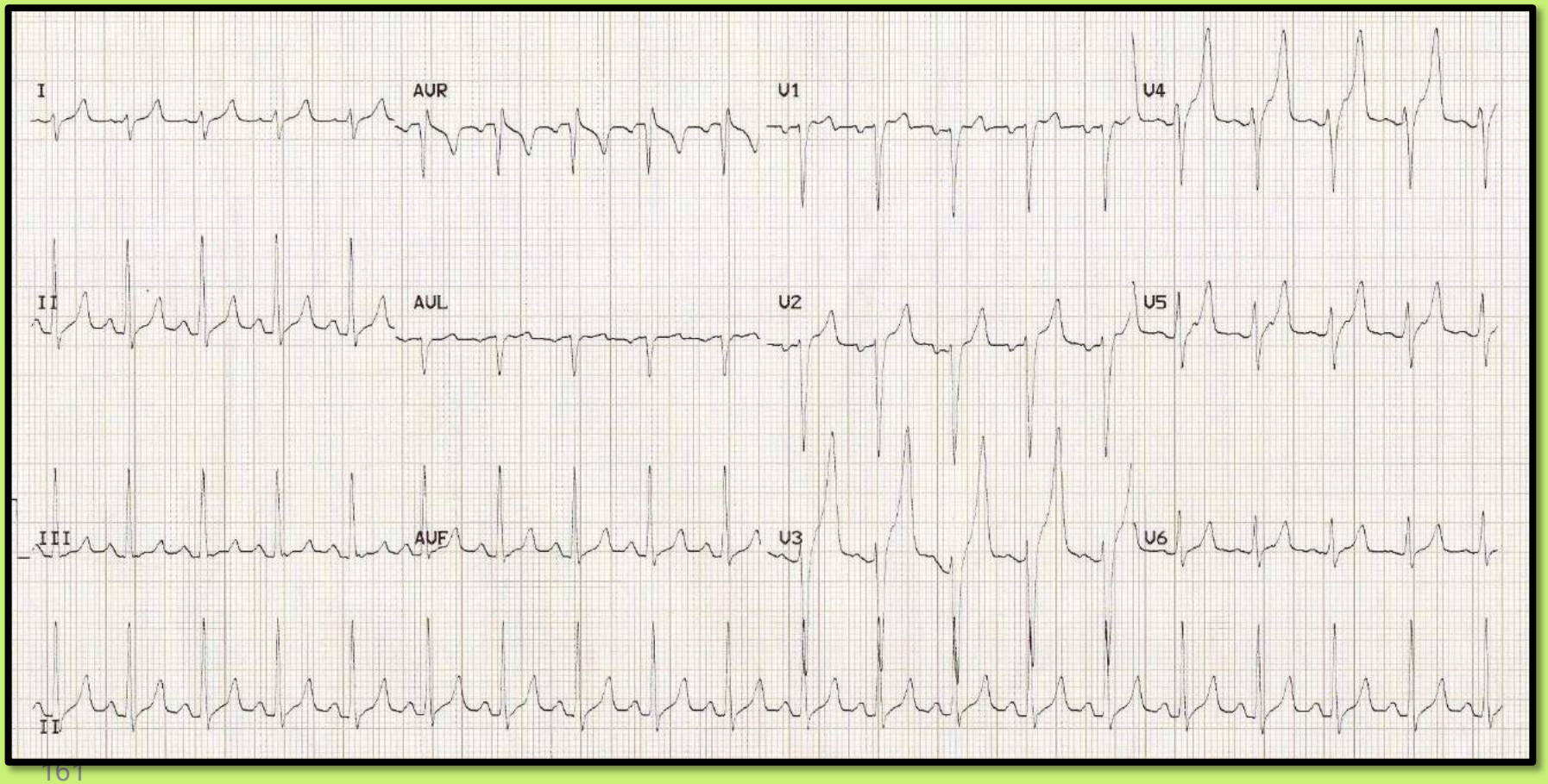
Acute Anterolateral STelevation MI

Q8: Pt has had infrequent episodes of palpitations, what is the Dx?



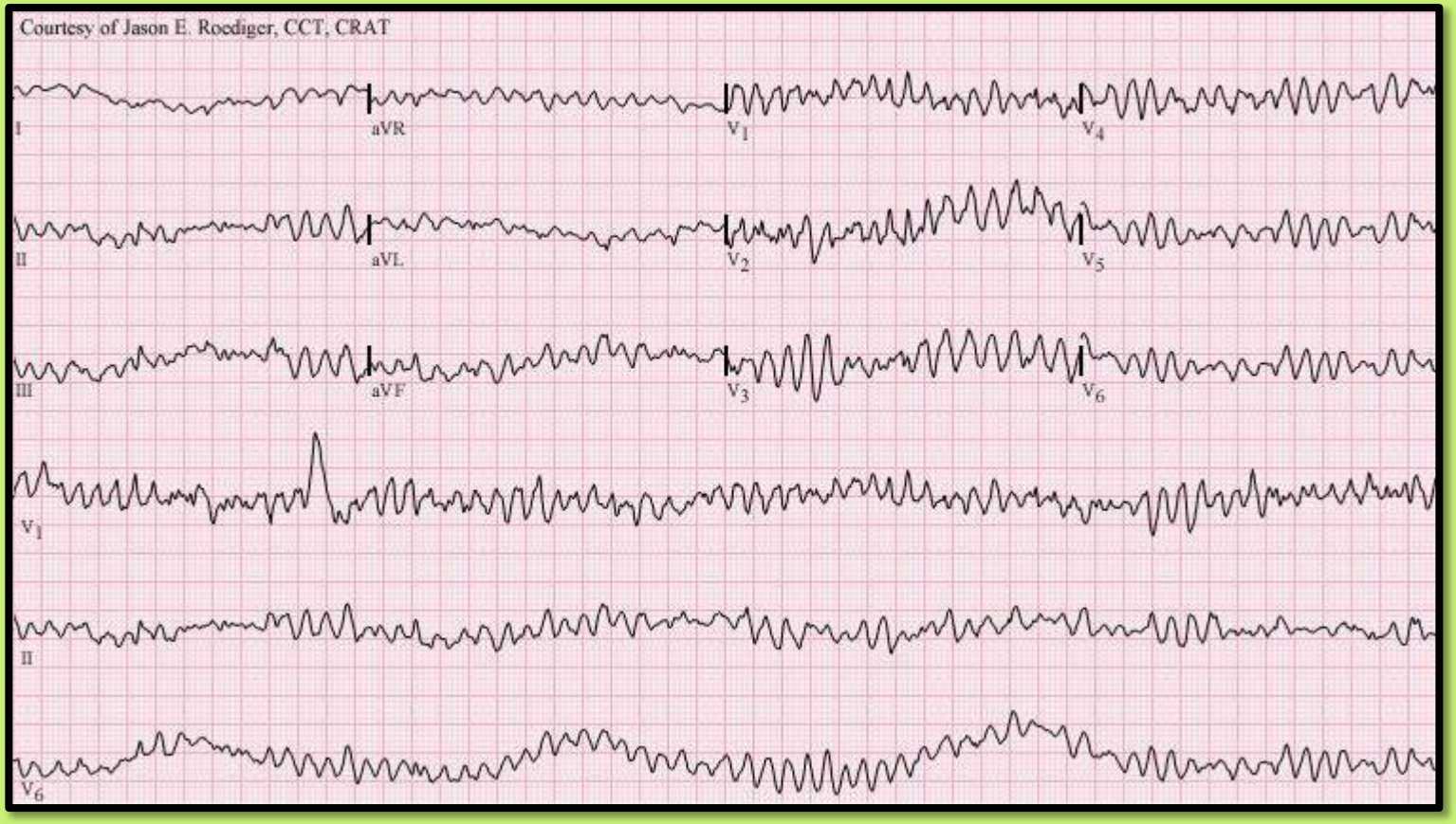
Atrial fibrillation.

Q13: Patient with chronic renal failure presented with chest pain, what is the biochemical test you have to do?



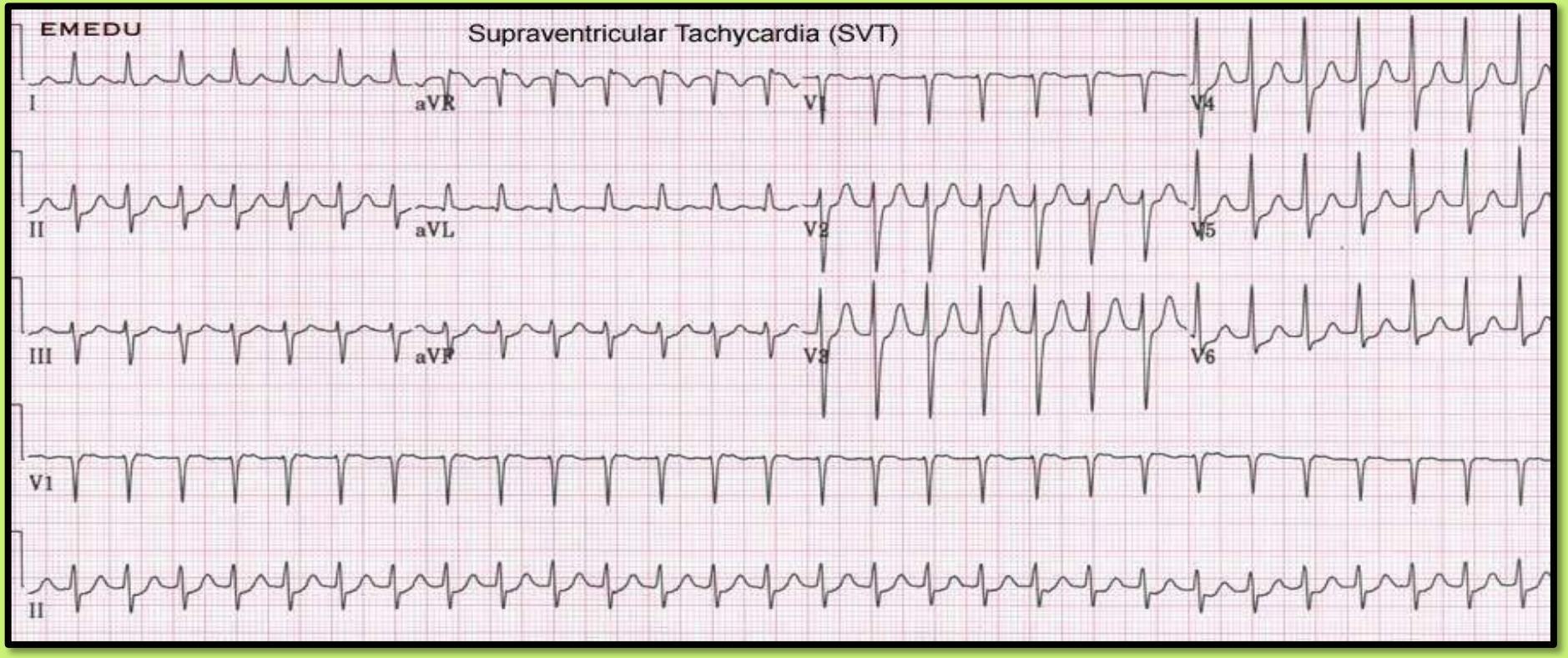
Atrial Fibrillation

Q12: 50 YO male in CCU, he is waiting for cath., he lost his consciousness, with this ECG. Dx? Your management?



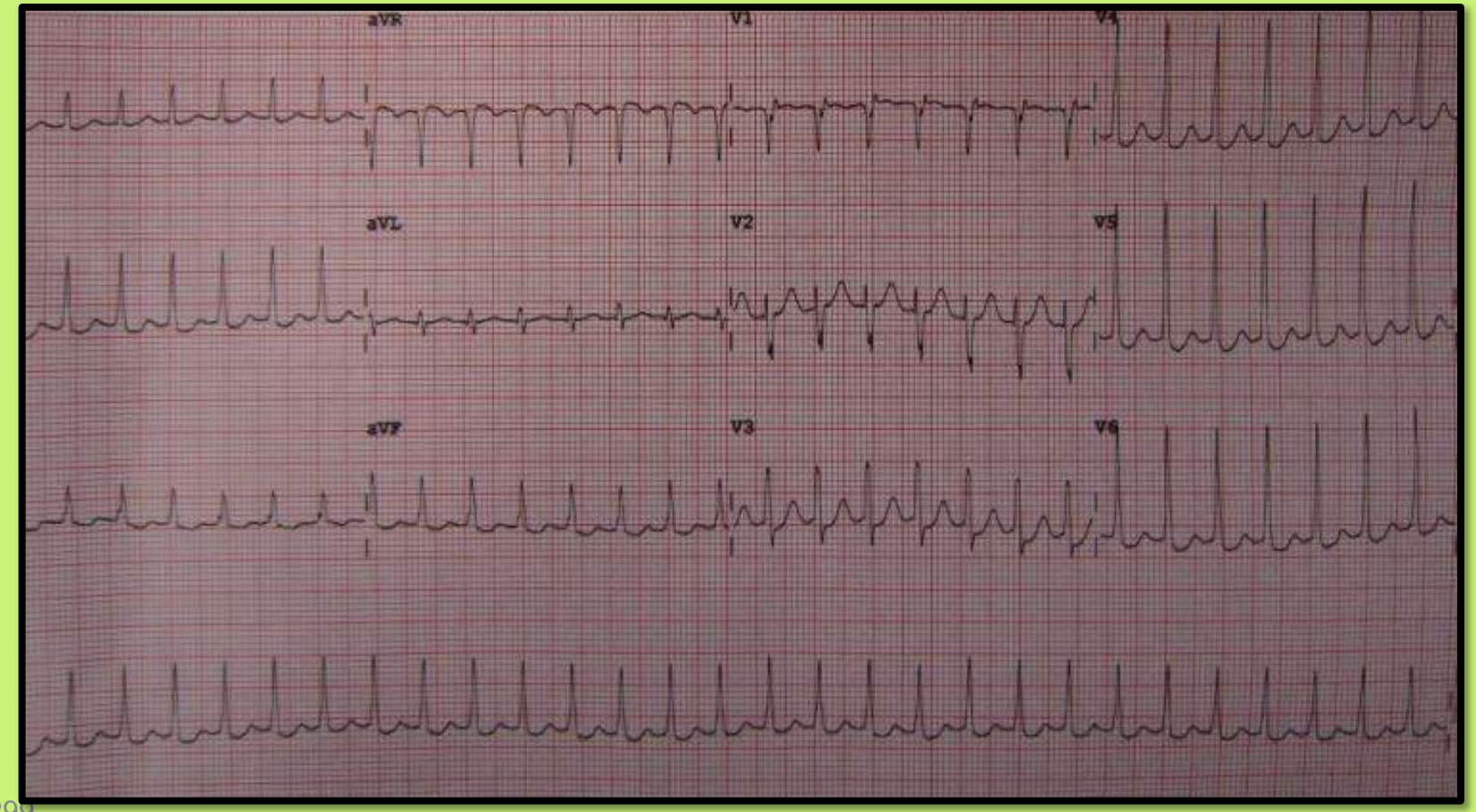
ventricular fibrillation >>
DC shock.

Q7: This patient came with (??) & blood pressure of, & this is his ECG, what is the treatment?



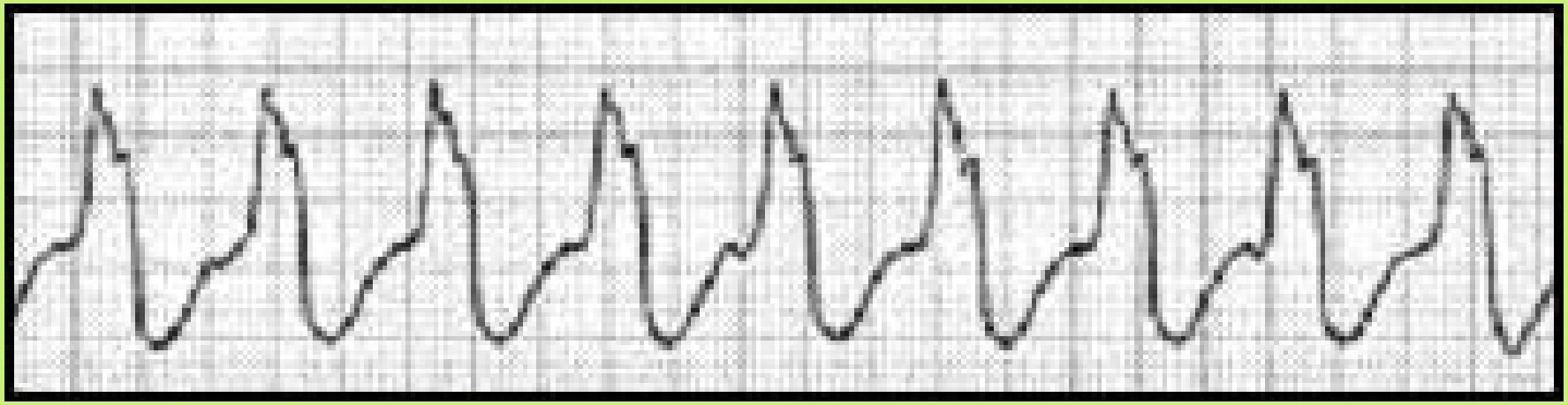
Since the patient is stable Adenosin.

Q6: 18 YO male came to ER complaining of palpitation, depending on ECG of this pt, what is your spot Dx?



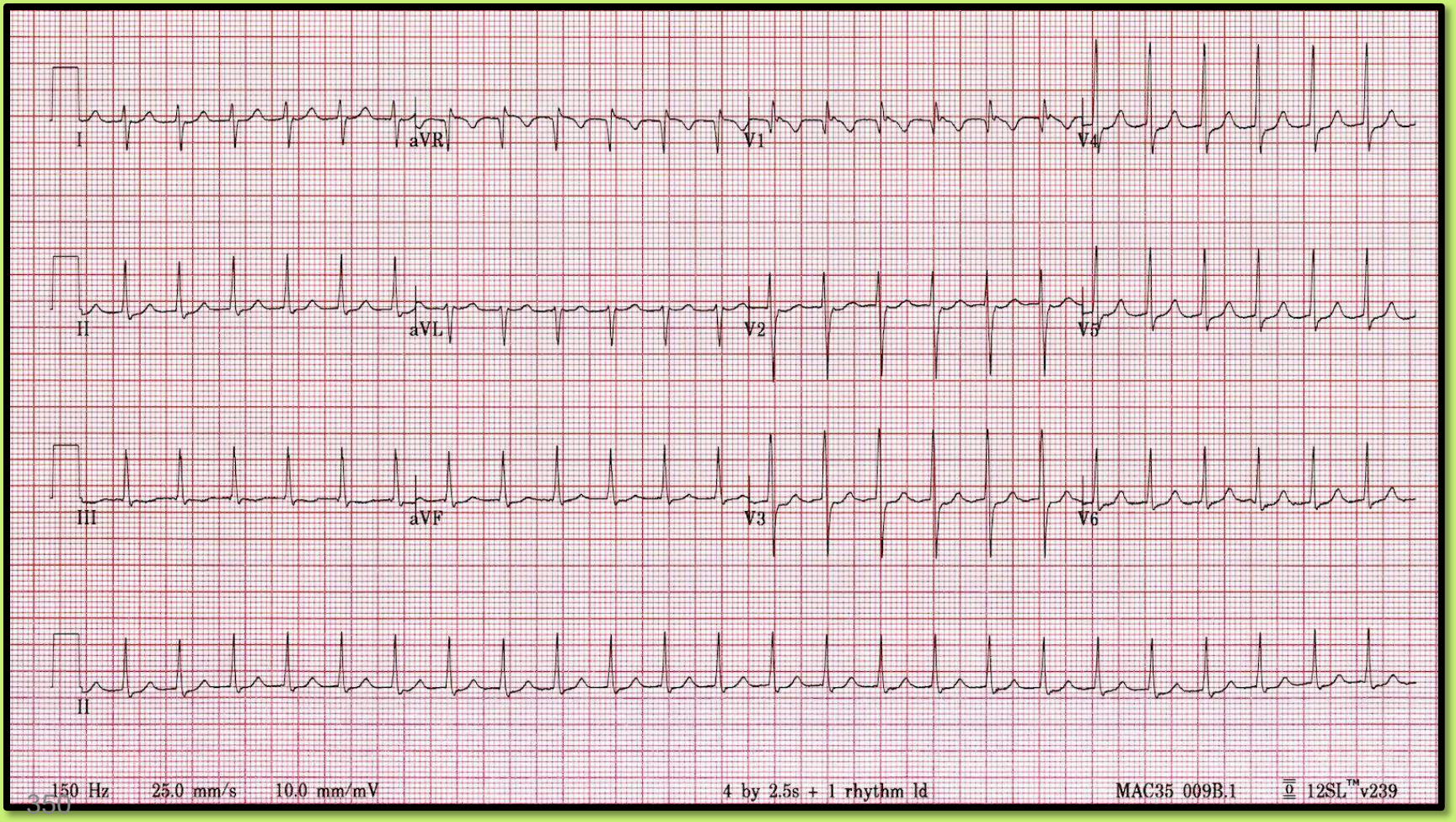
Supraventricular tachycardia (**SVT**)

Q4: What is your finding in this lead of ECG?



Venticular tachycardia.

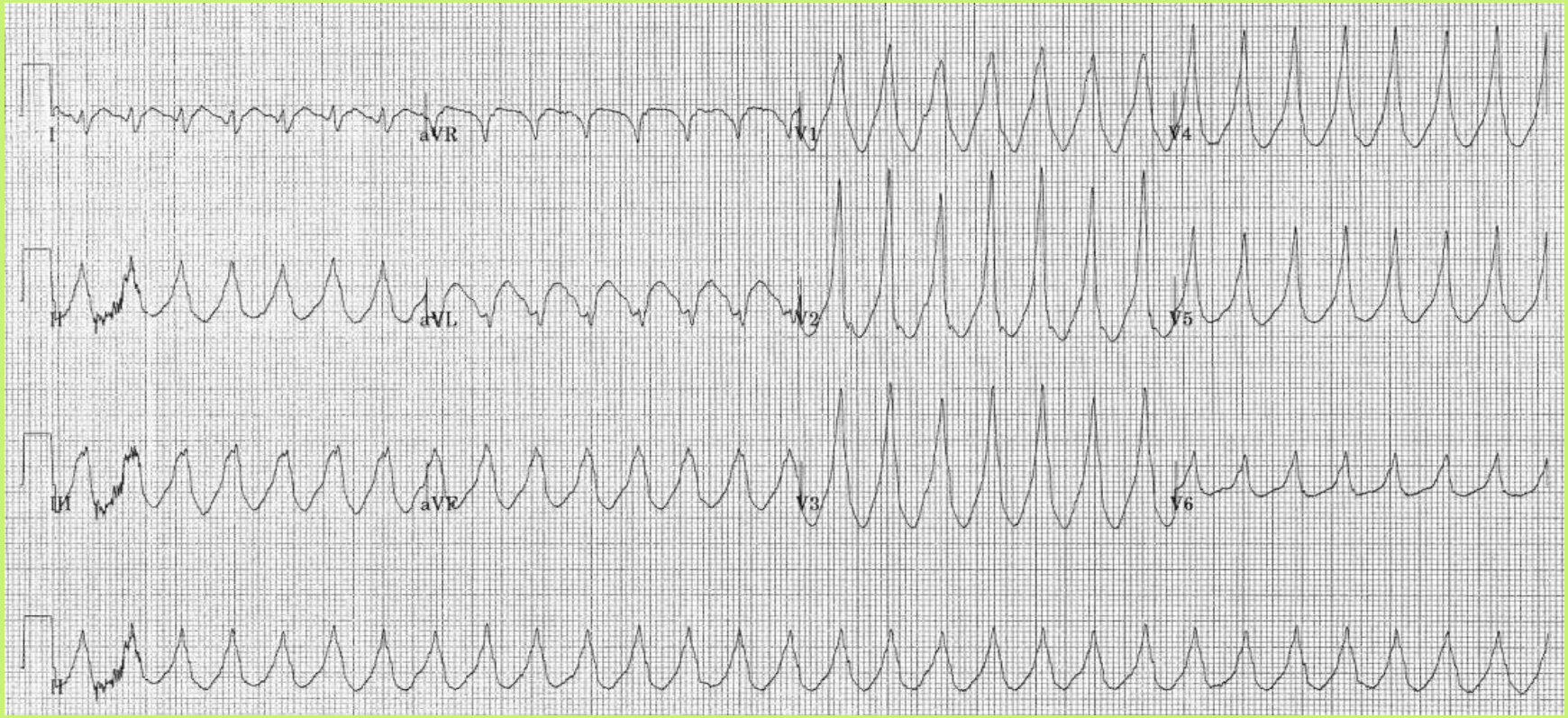
Q5: A pt presented with recurrent palpitation for 8 weeks, what is your Dx according to his ECG?



Paroxysmal supraventicular tachycardia.

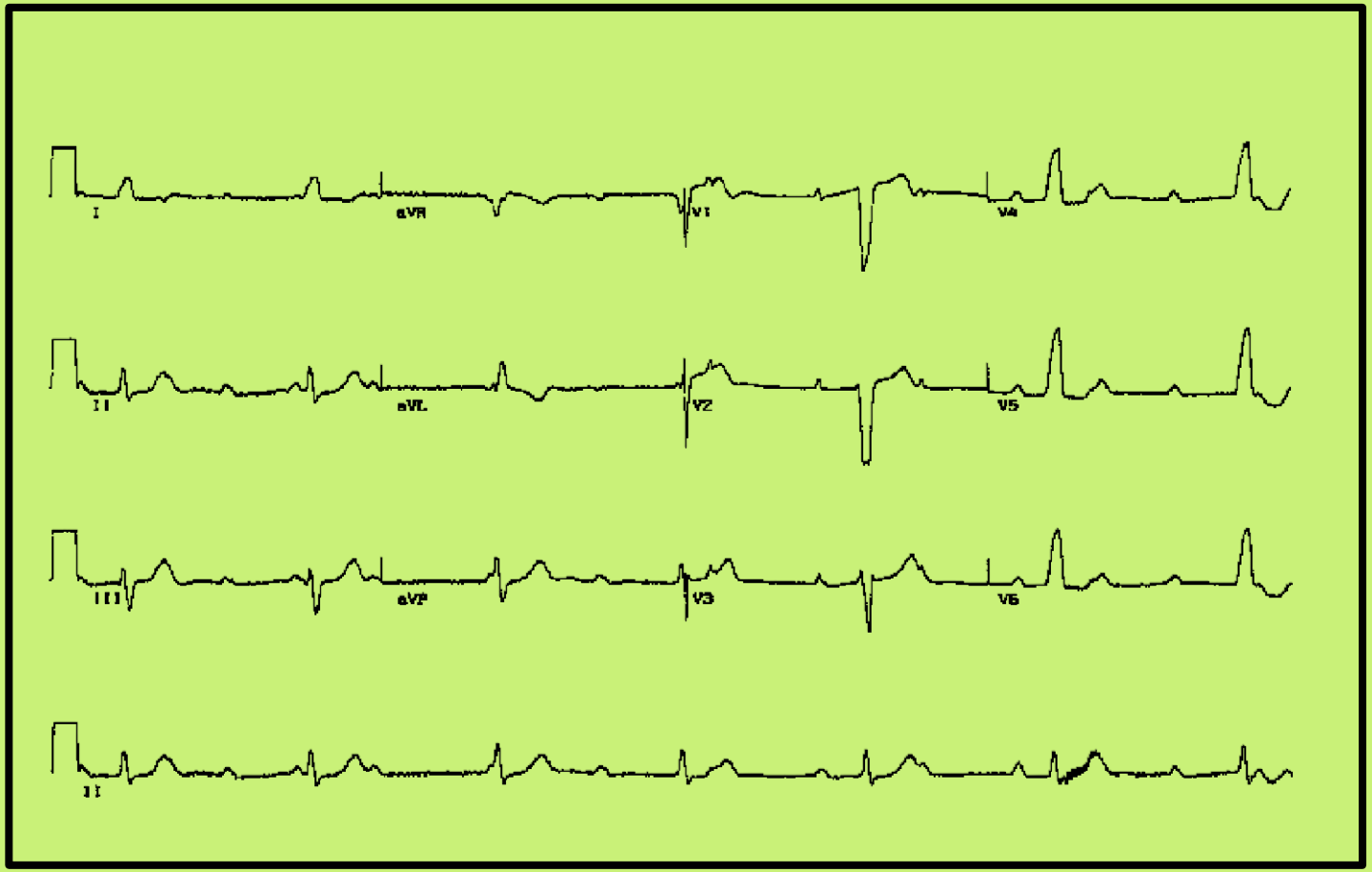
Question #16

This patient presented with dizziness & palpitation, normal blood pressure. What's the treatment of this case?



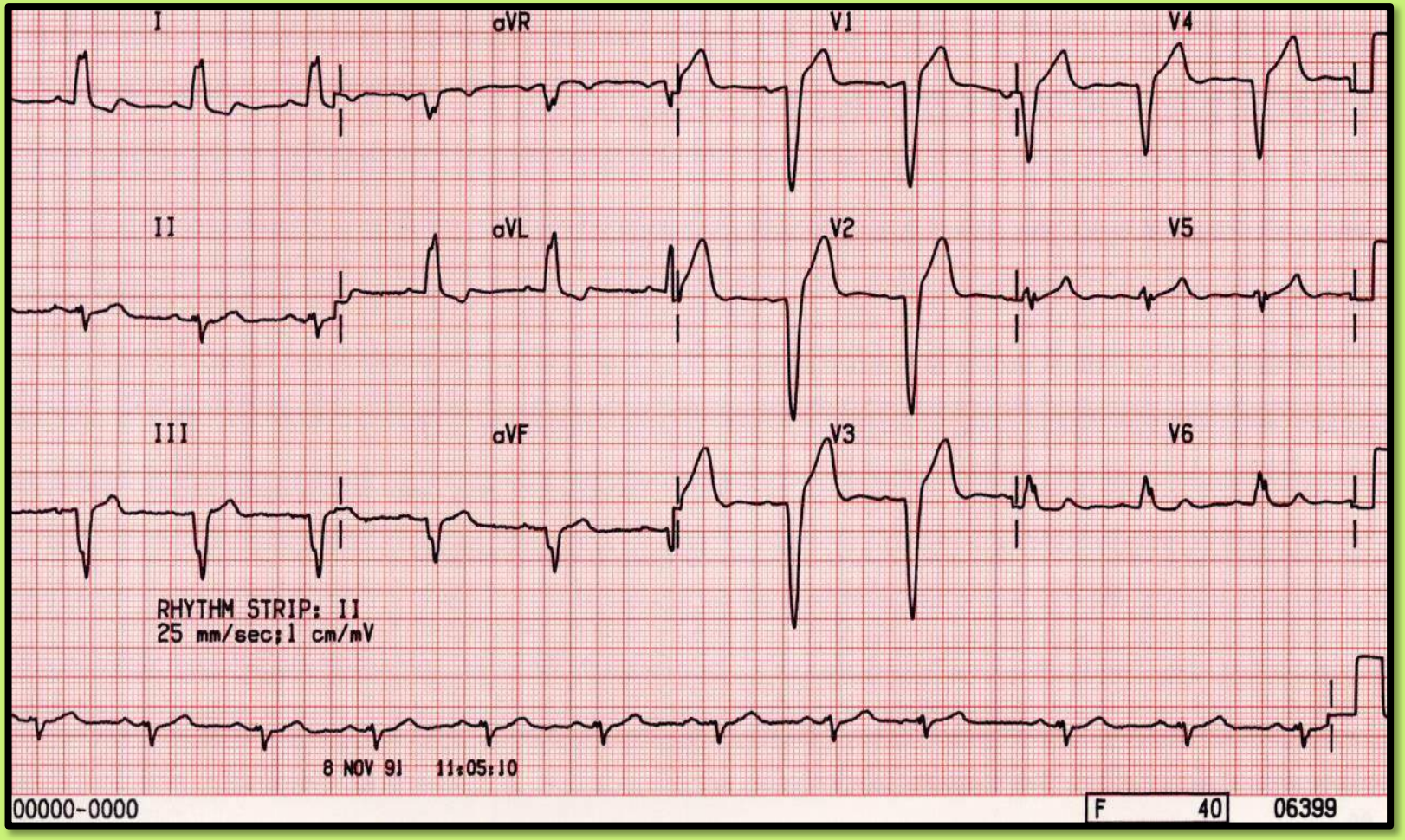
Lidocaine (V. tachycardia)

Q6: This ECG is for a 70 YO pt presented with recurrent attacks of dizziness. What's your Dx?



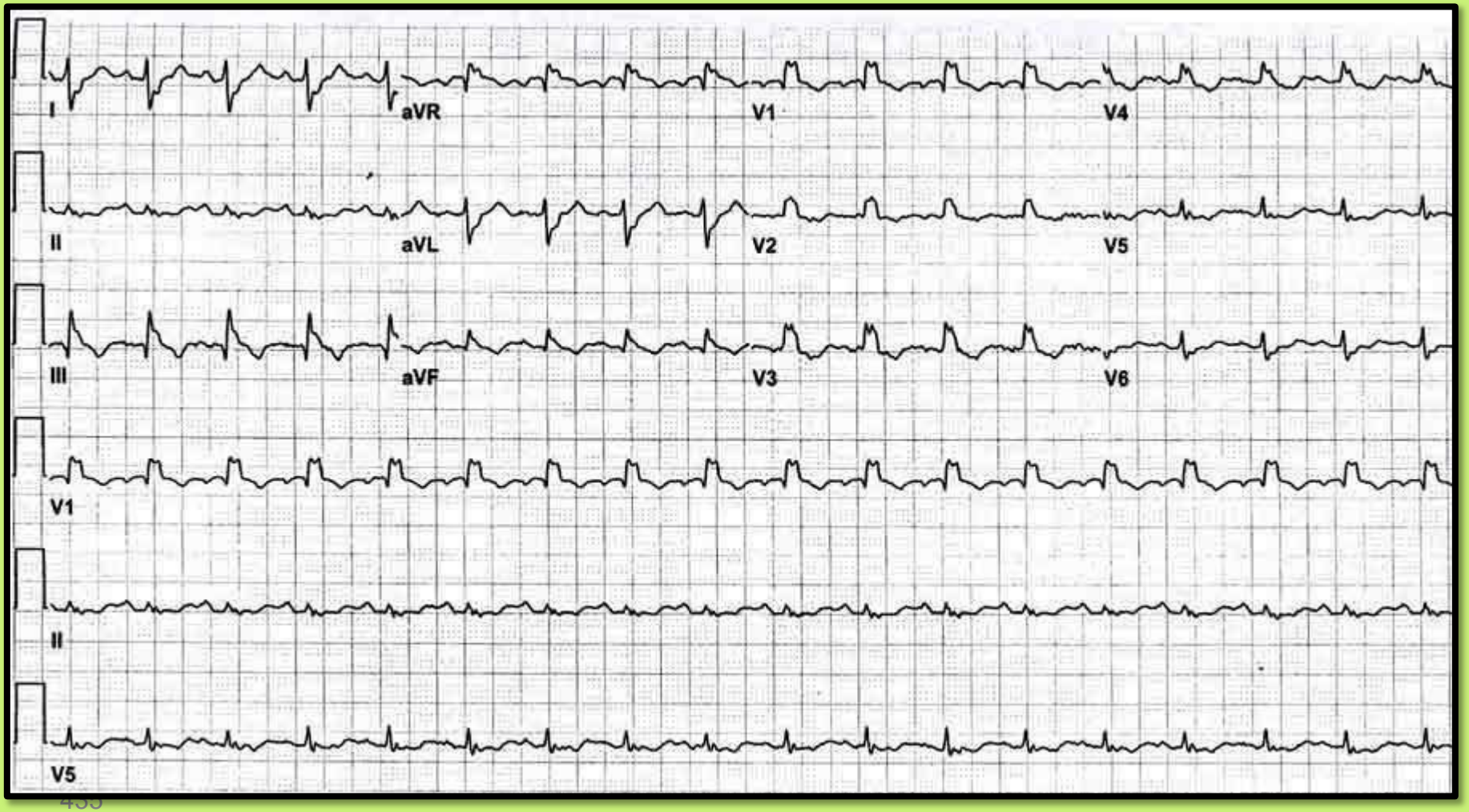
Third degree (complete) heart block.

Q5: What's the main abnormality in this ECG?



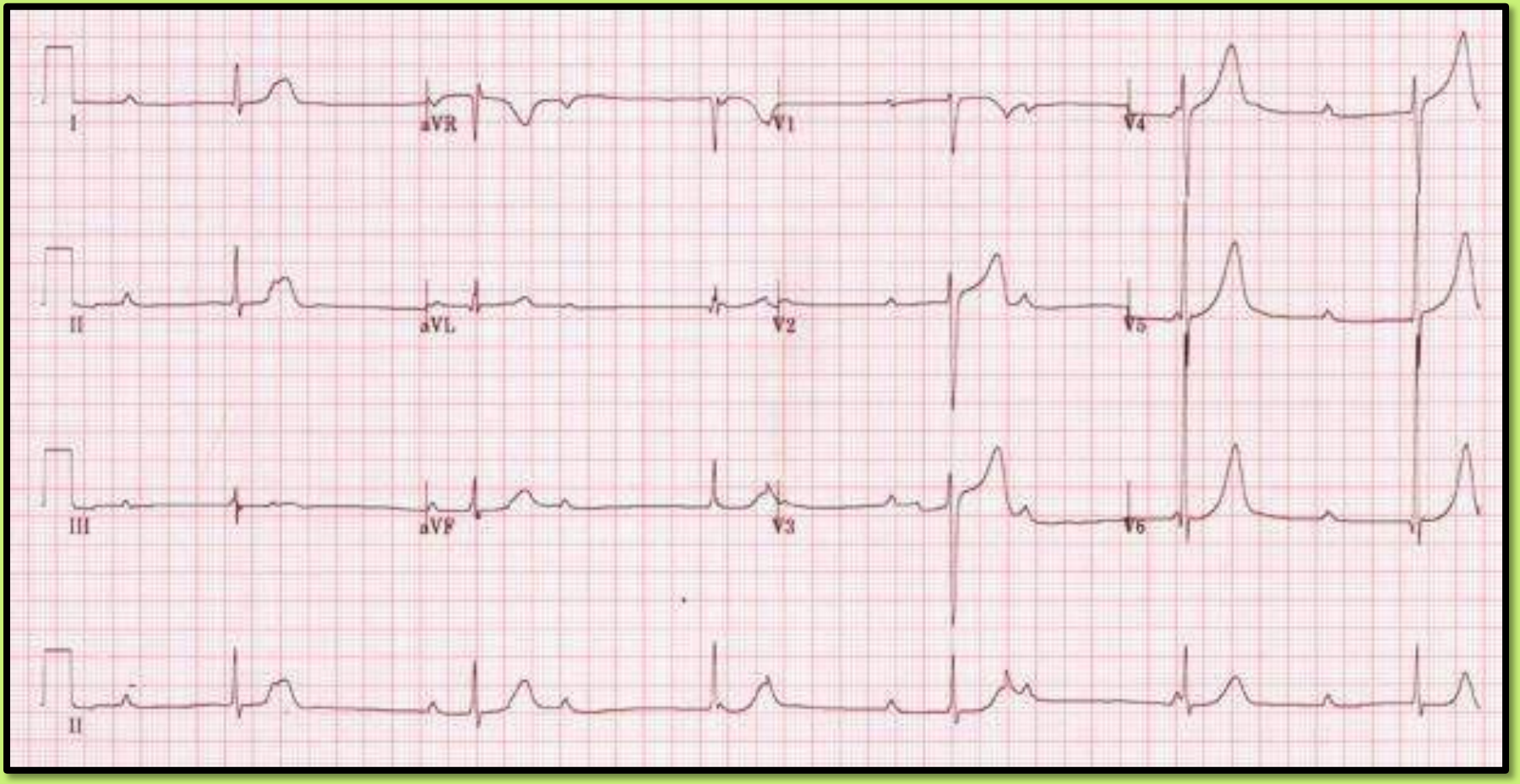
Left Bundle Branch Block (Notice the M shape of the QRS complex in V6).

Q4: This pt presented with palpitation, he is known case of recurrent attacks of DVT. Give 2 abnormalities in this ECG?



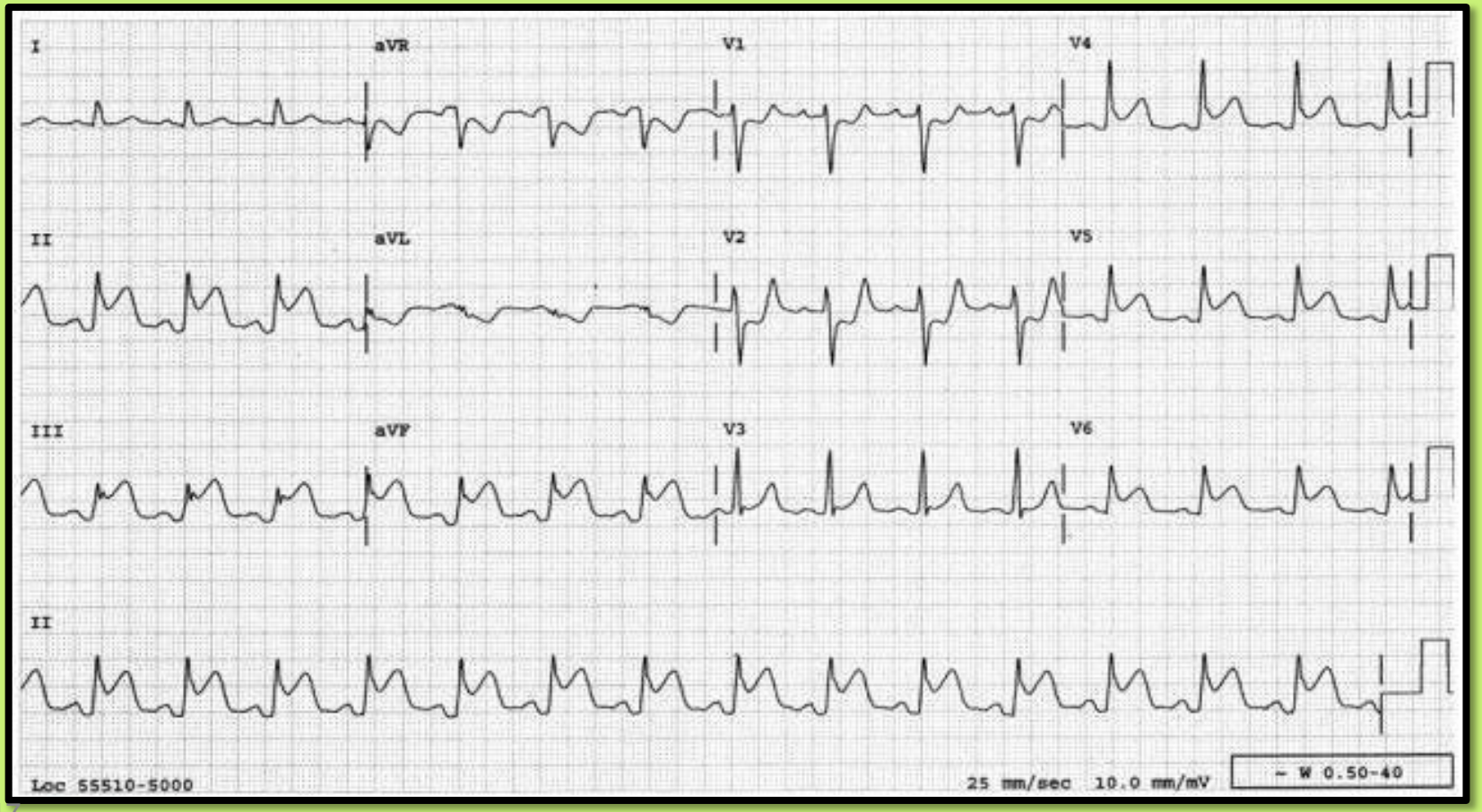
S1Q3T3, RBBB pattern which is suggestive of pulmonary embolism.

Q2: What is the diagnosis?



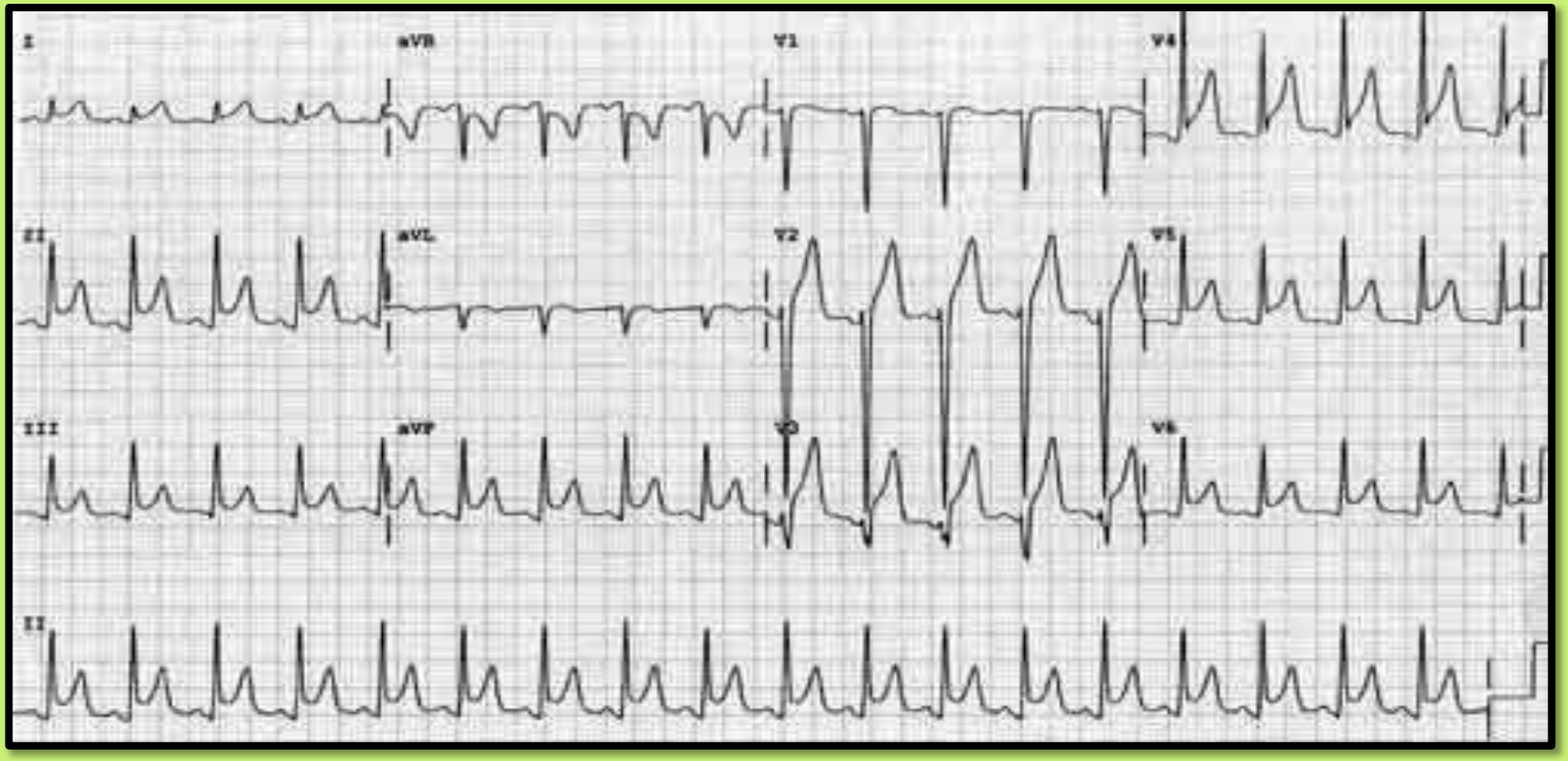
3rd degree heart block

Q4: The pt came to the ERwith chest pain of a 6-hour duration. What is the Dx. depending on his ECG?



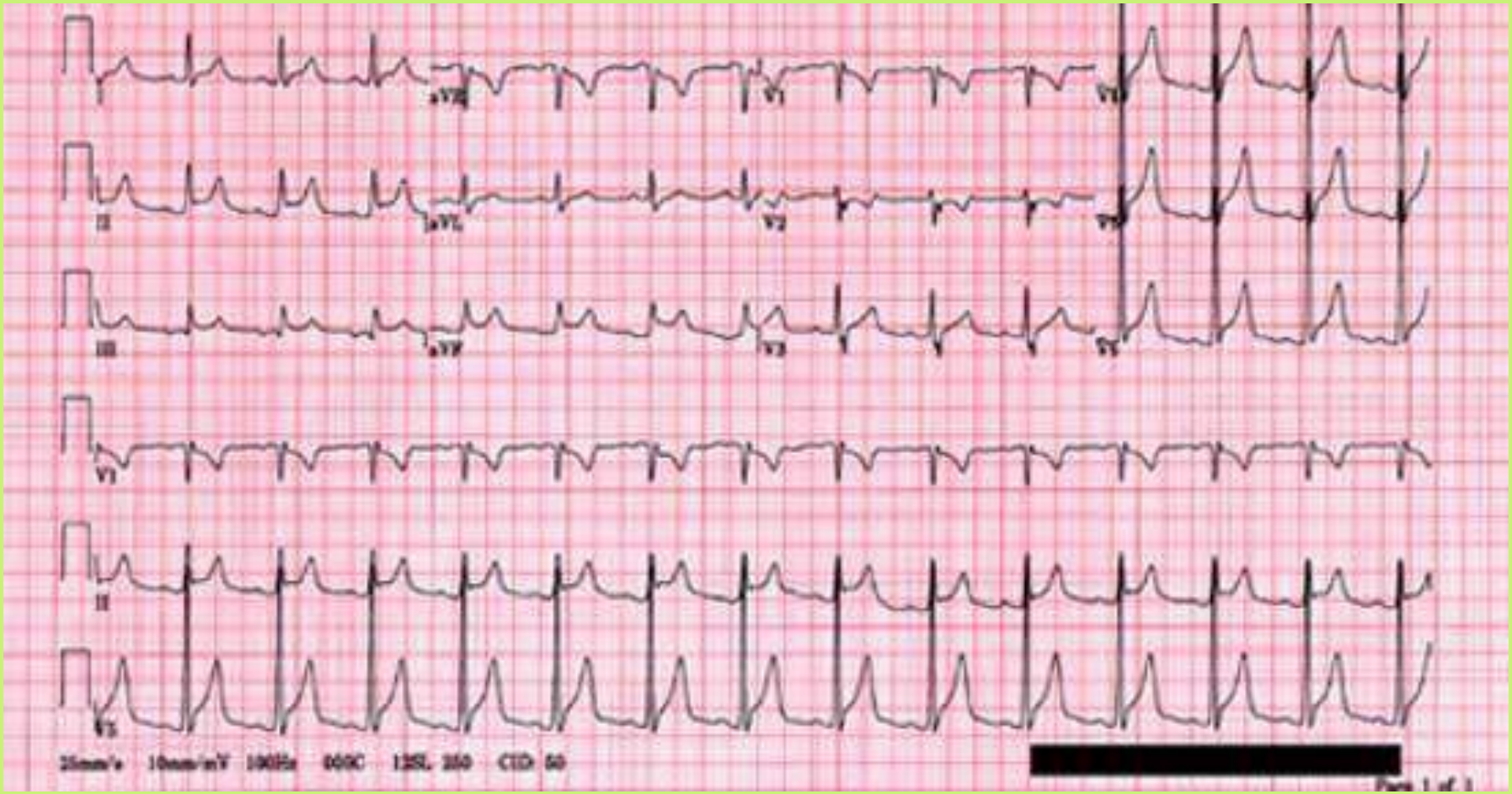
Acute Pericarditis.

Q3: The pt came with central sudden onset of sever chest pain for 6 hrs , What is the diagnosis?



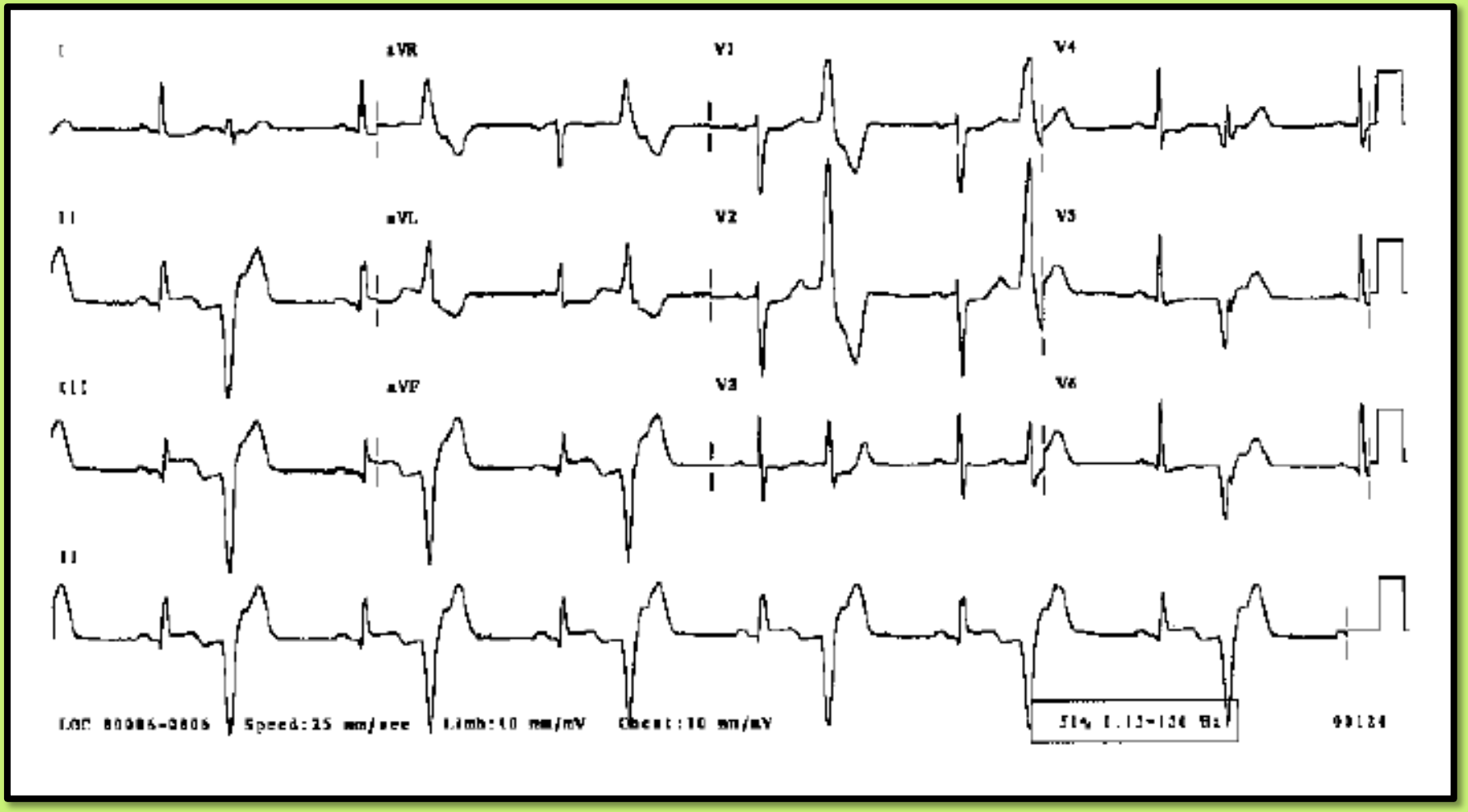
Acute Pericarditis .

Q6: A 30-year old male had a sudden onset stabbing chest pain. ECG showed the following. What is the diagnosis?



Acute pericarditis .

Q8: What is your spot Dx?



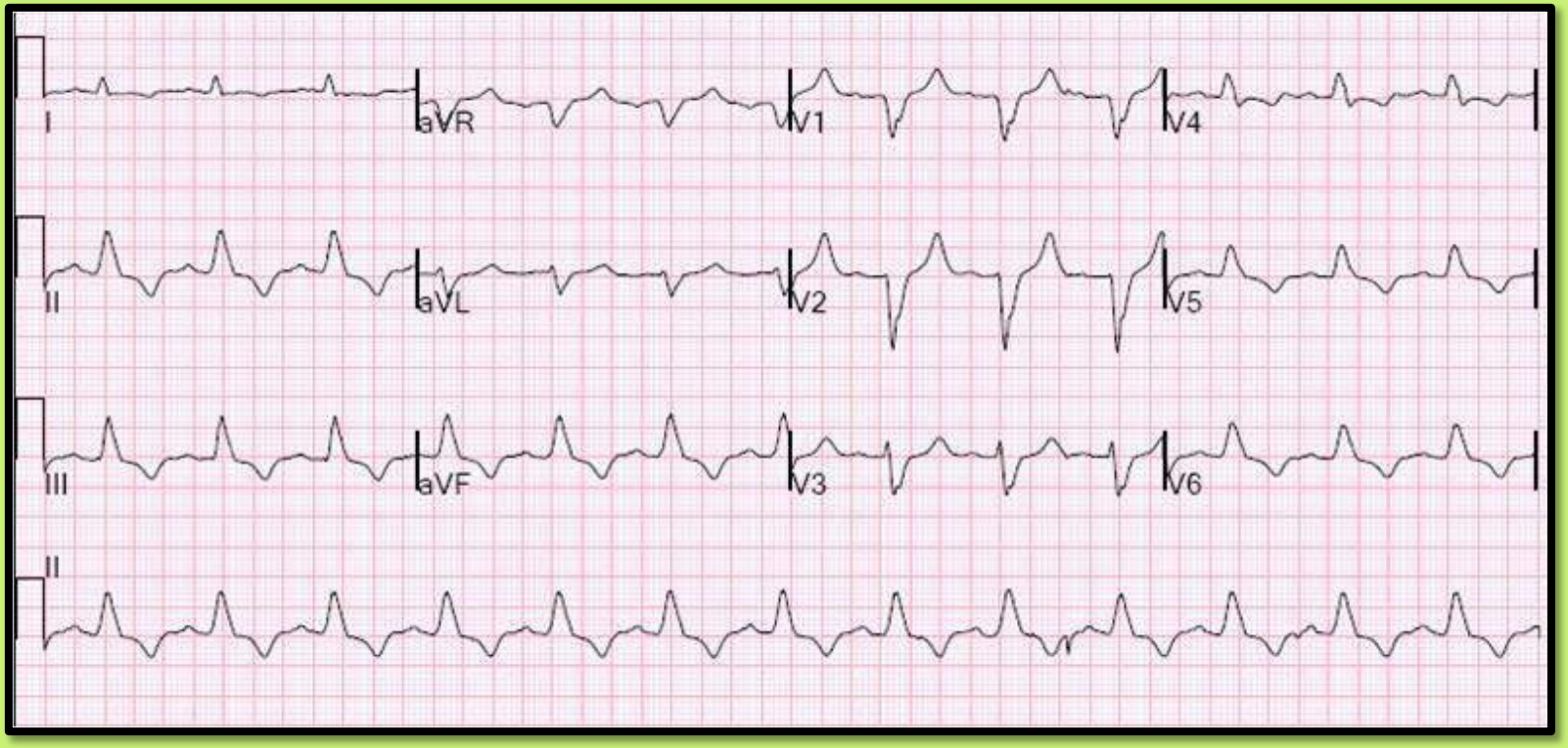
Ventricular bigeminy.

60 YO DM pt with chronic dialysis came with this EKG.

1- Give 2 abnormalities in this EKG .

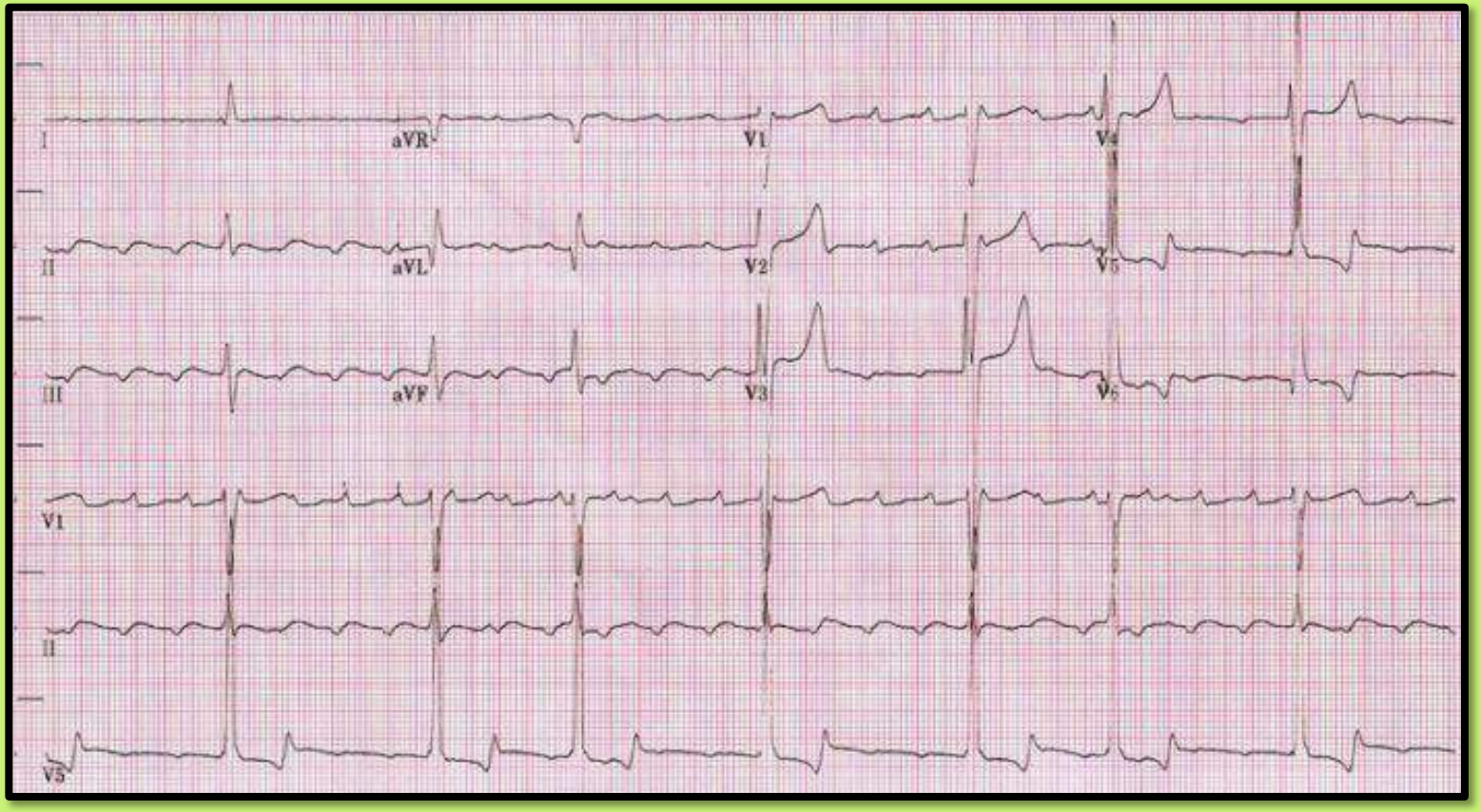
2- what is the cause of this EKG ?

3- Give 2 line of Mx?



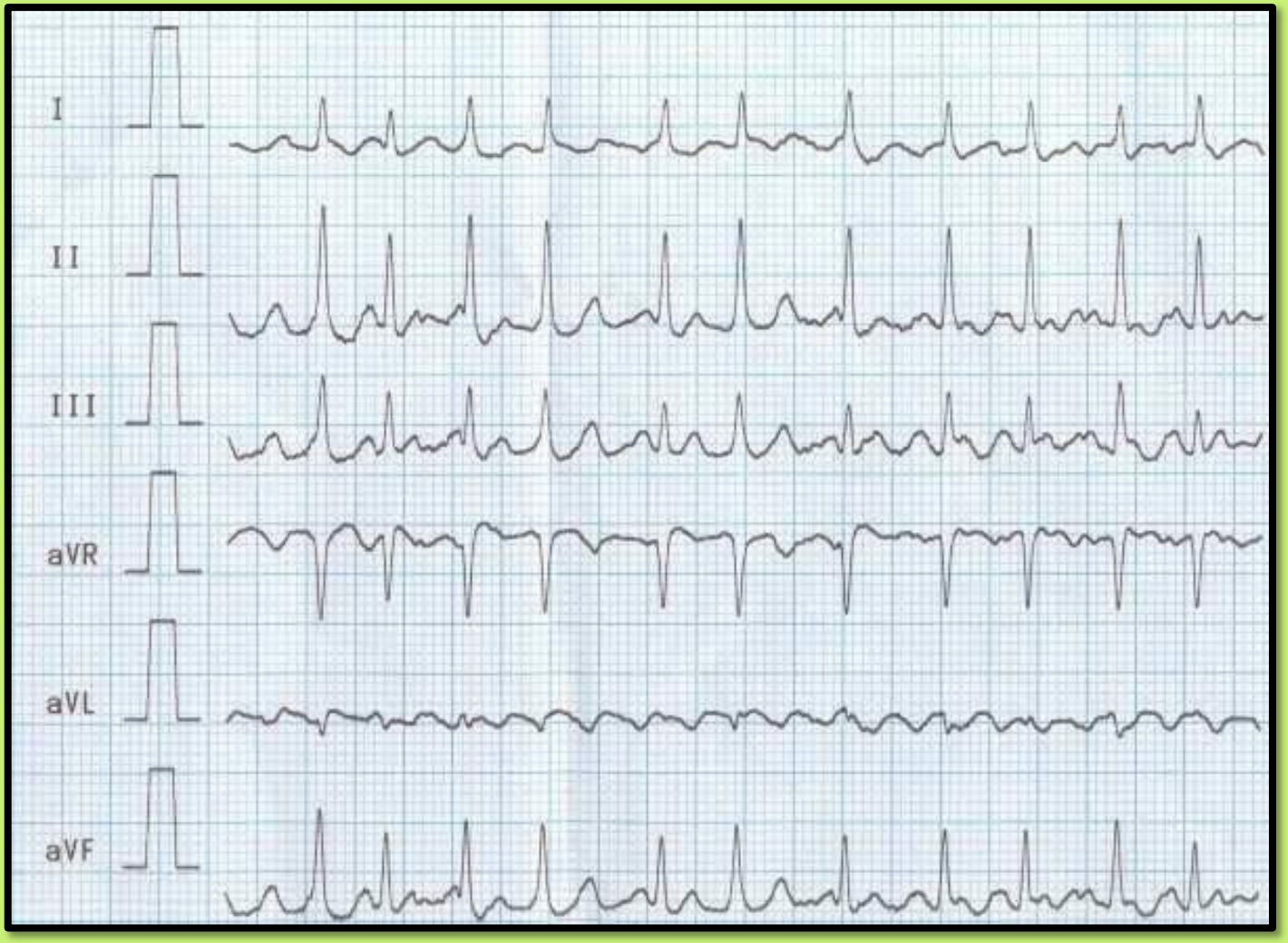
1. - hyper acute T-waves , Wide QRS.
2. Hyperkalemia.
3. - Ca gluconate , Glucose & IV insulin.

Q2: This ECG is for a known case of chronic renal failure, what is your spot Dx? what is the most emergency tt?



Hyperkalemia / IV calcium gluconate.

Q10: Patient presented with palpitation & the following ECG?



Serum Potassium.

Case #1

50 YO male, smoker, has HTN, & hyperlipidemia came to you with chest pain, effort dizziness or lightheadedness, easy fatigability, & progressive inability to exercise. After Chest examination you found mid-systolic ejection murmur & you felt in left systolic thrill in left mediastinum.

1. What is Your spot Dx. ?
2. What is Your investigation?
3. What are The Causes?
4. What are the Complications?
5. What Is the Treatment?

1. Aortic Stenosis.
2. Echocardiogram.
3. Congenital heart defect.
   - Calcium buildup on the valve.
   - Rheumatic fever.
4. 1) infective endocarditis.
   2) Heart failure.
   3) Cardiac arrest.
5. Aortic valve replacement.

- **This is a Hint about this Aortic Stenosis subject so you must read more about this topic .**

Case #2

A case of a pt with mid-diastolic murmur, & difficulty on swallowing. No LVH, normal CXr. The pt develops stroke.

1) What is the valvular heart disease in this case?
2) What is the most common arrhythmia seen in this condition ?
3) What is the best diagnostic radiological test in this case?
4) What do you think the cause of the stroke is?

1) Mitral stenosis.
2) Atrial fibrillation.
3) ECHO.
4) Emboli.

Case #2

30 YO pt came to the ER suffering from, SOB, palpitations, sweating & productive cough with irregular irregular pulse & mid-diastolic murmur heard on the apex of the heart.

1. What the cause of the murmur?
2. Mention the cause of the SOB.
3. What caused the irregular pulse?

Q1 Mitral stenosis.

Q2 Acute pulmonary edema.

Q3 AF.

Case #1

Known to have HTN & IHD for long time came with SOB, orthopnea, crepitating & S3 gallop sound.

Q1: what is the Dx?
Q2 : give 2 investigations to confirm the Dx.
Q3 : mention 2 lines of management.

1 acute heart failure.

2 x ray + echo.

3 a- position and oxygen.

b- diuretics (IV lazix).

Case #4

Known to have HTN & IHD for long time came with SOB, orthopnea, crepitating & S3 gallop sound.

- what is your Dx ?
- 2 investigations ?
- 2 lines for the treatment?

- acute heart failure.
- x ray & echo.
- Position and oxygen // Diuretics (IV lazix).

Case #3

72 YO male come to ER with chest pain for 30 min prior to admission.

Q1: what are the 2 investigations you want to order?

Q2: what's the most likely Dx (ST depression in anterior leads, -ve cardiac enzymes)?

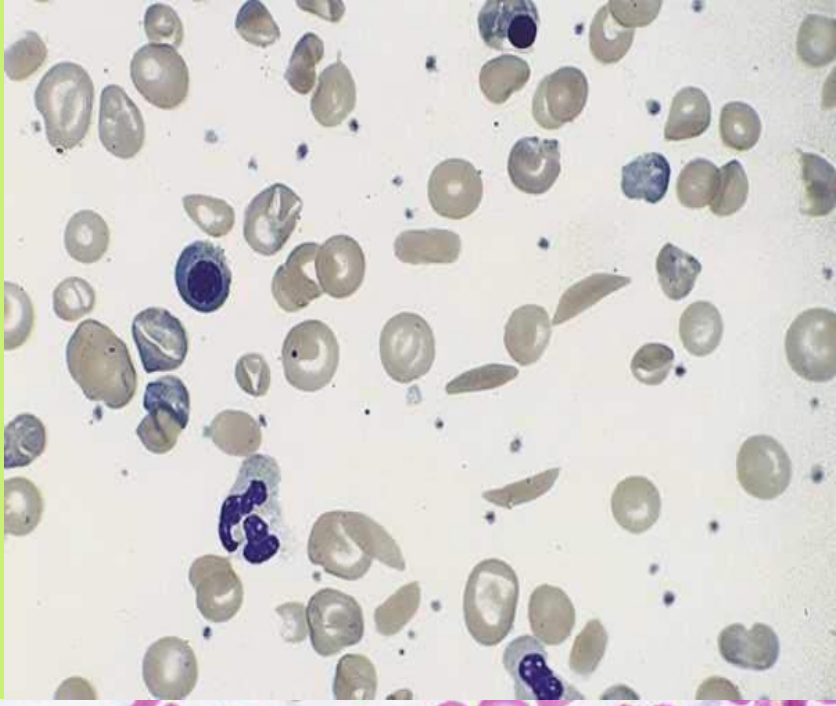
Q3: what's your management?

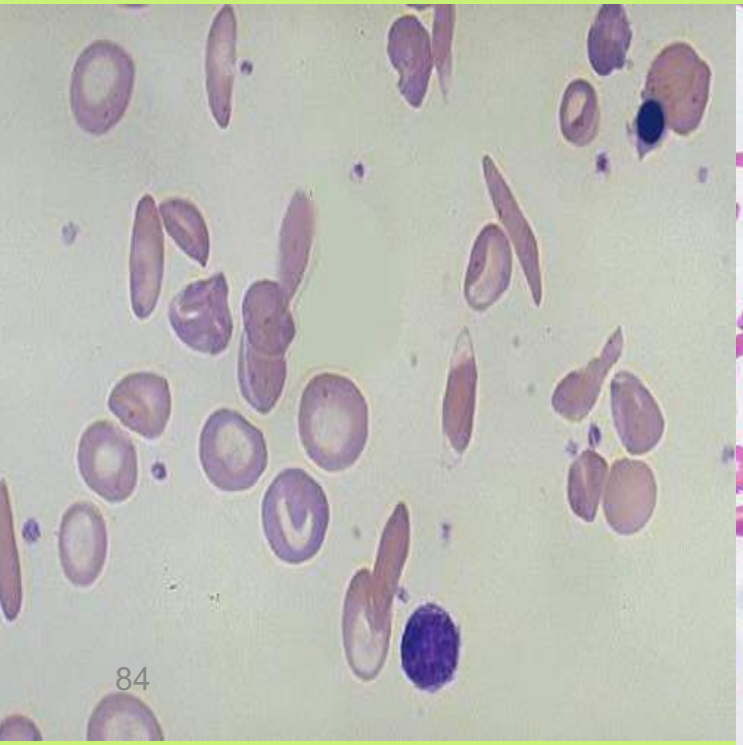
Q4: whats your management if cath. Showed 4 vessels occluded?

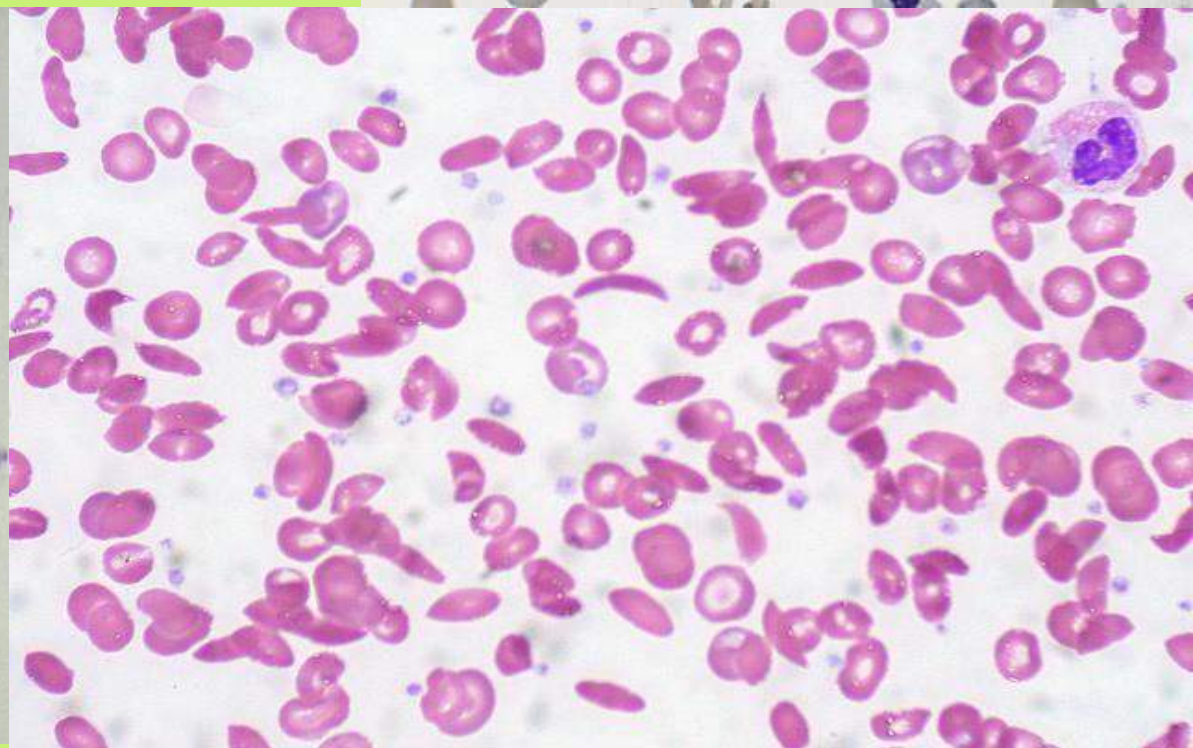
- ECG, cardiac enzymes.
- Unstable angina.
- Admission and cath.
- CABG .

Hematology

21 YO male patient presented with dark urine & mild jaundice, anemic, and have abdominal & lower limb pain. What's your diagnosis?

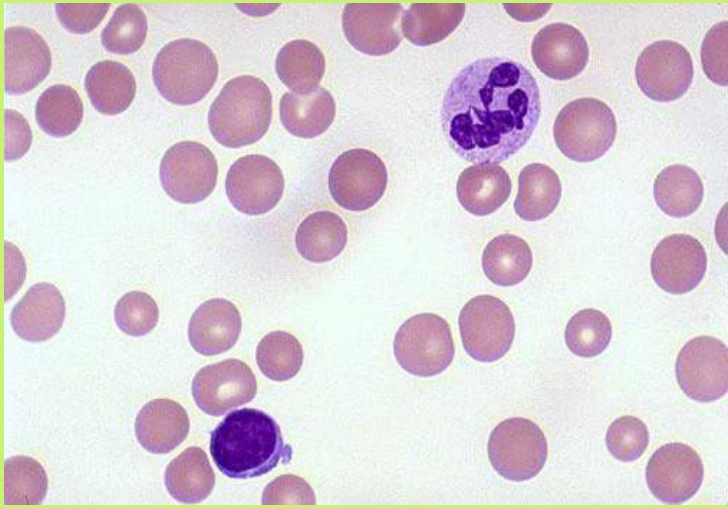


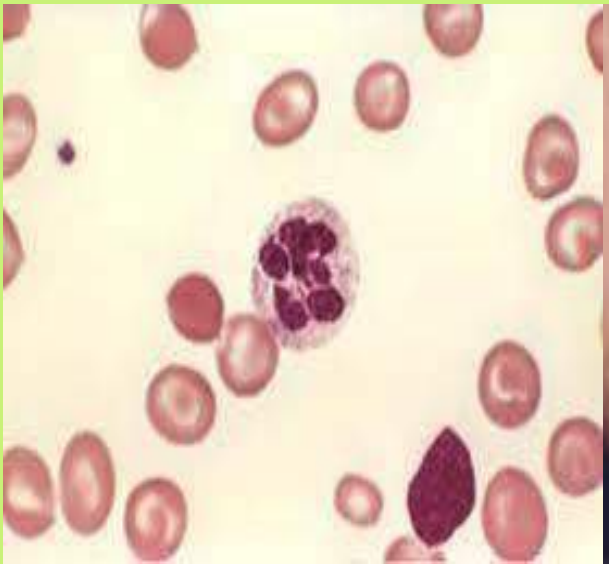


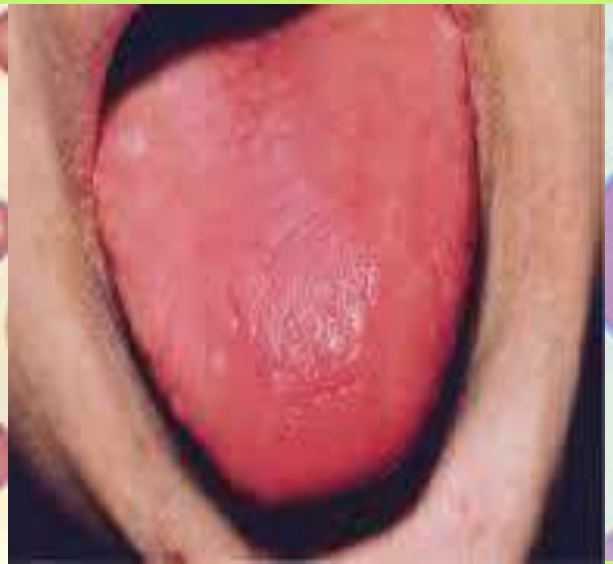


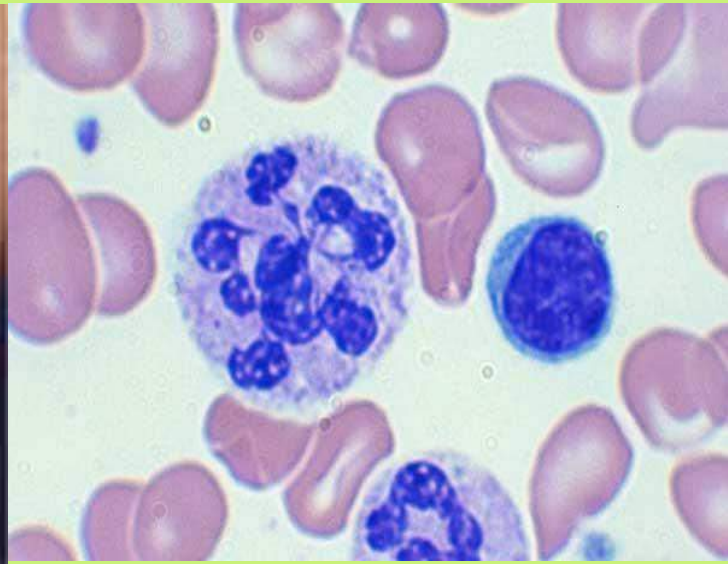
Sickle Cell Anemia

Q8: 32 YO female patient presented with pallor, lower limb numbness, paresthesia & Vitiligo , has terminal ileum resection in his past Hx, what is the diagnostic test?, What is the most likely Dx? What is the abnormal finding in the blood test?







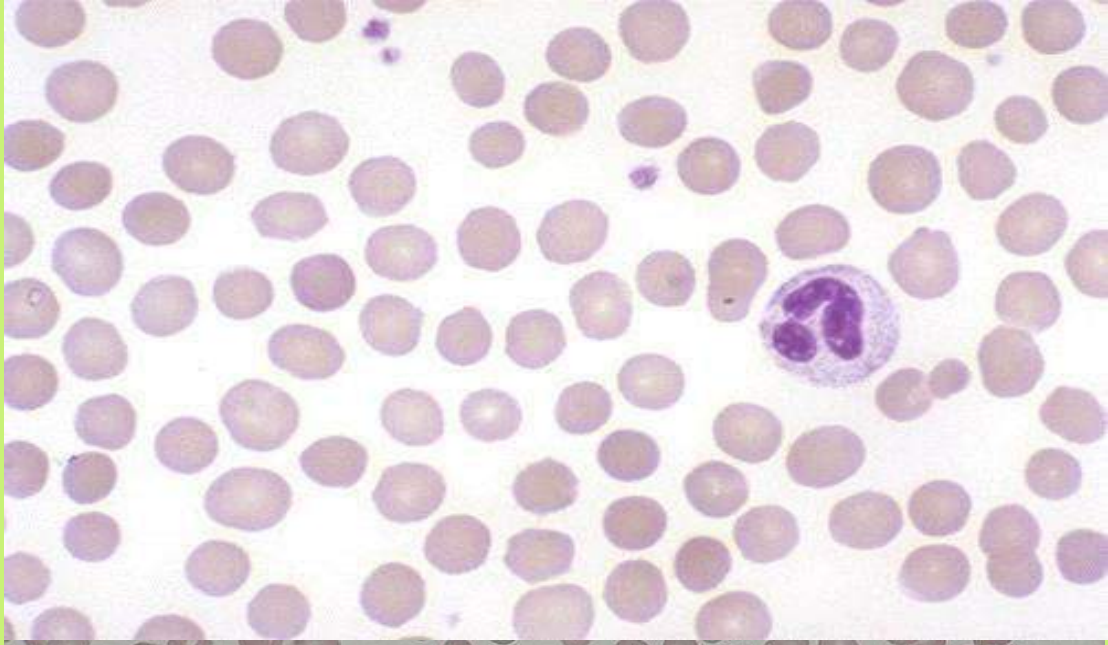


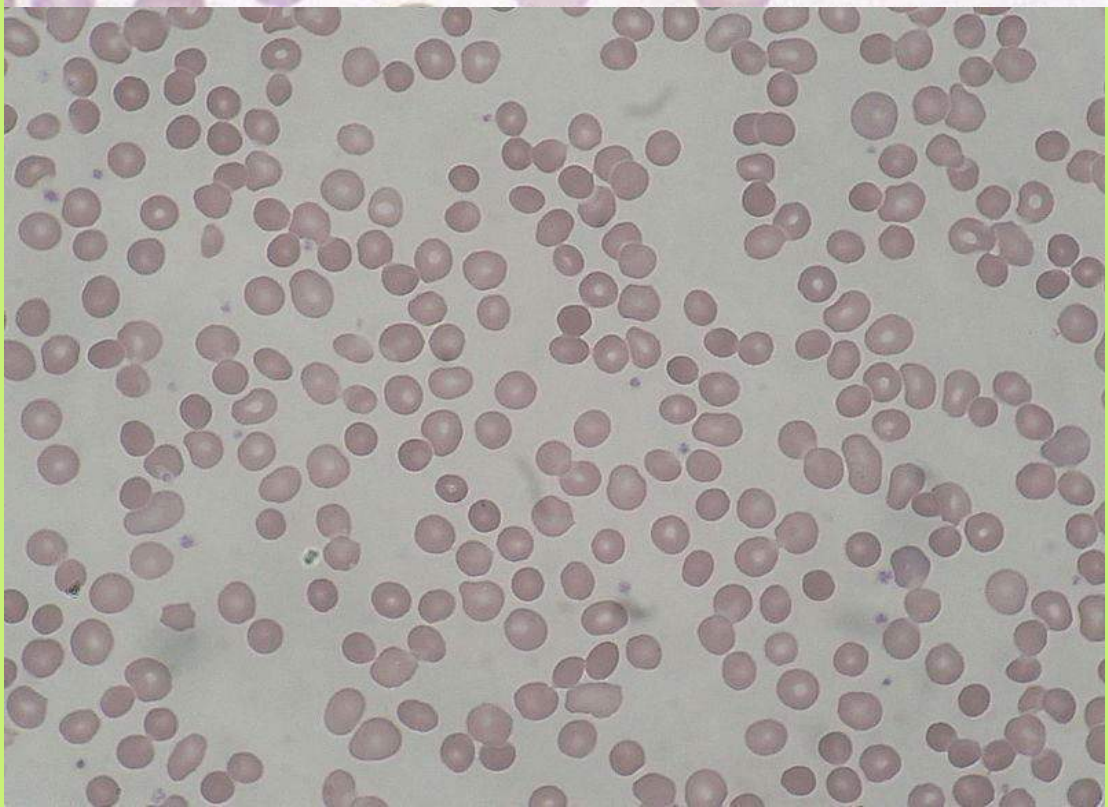
A. Serum B12
B. Megaloblastic anemia (due to B12 deficiency) – Pernicious Anemia
C. Hyper segmented Neutrophil

Q3: What's the hematological abnormality in this blood film?

G6PD deficiency.

Patient presented with anemia & splenomegaly with family Hx of Anemia, what is the Dx? Mention 1 Diagnostic test

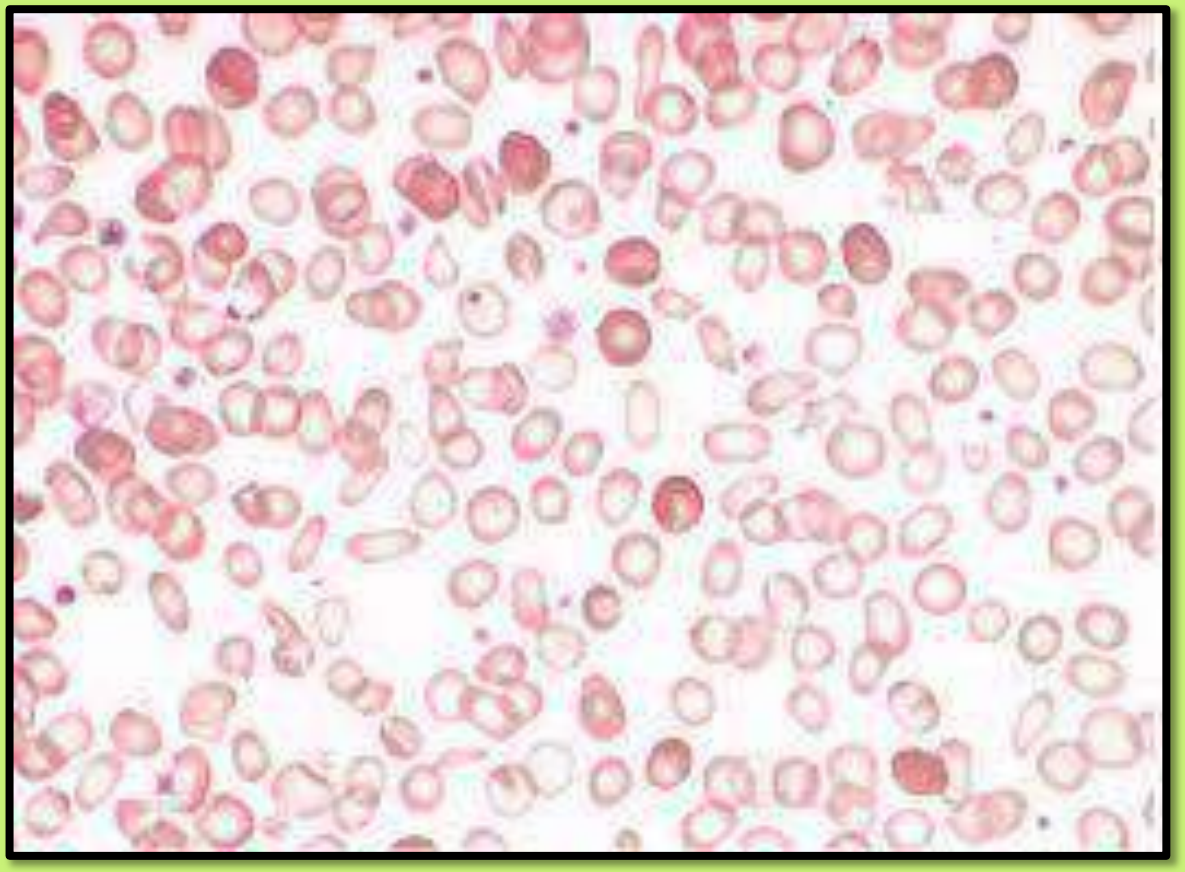




Hereditary spherocytosis

Osmotic fragility test.

Q6: A 29 YO female has become increasingly lethargic for the past 6 months. She complains from SOB, fatigue & tachycardia. Her peripheral blood smear is shown here. What is the Dx?

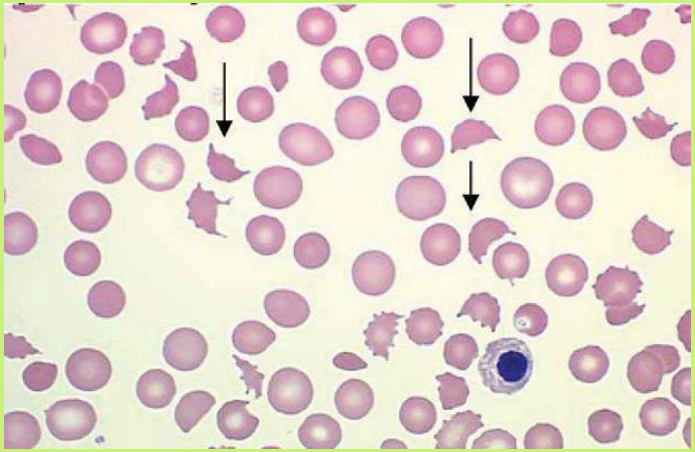


Iron deficiency anemia

Case #4

A young male patient presented complaining of bloody diarrhea for 5 days, followed by confusion, anuria, and low grade fever. Below is his blood film. His labs are:

- Platelets 55 / PT & PTT normal
- Hb 8
- Urea and creatinine high.



1. Mention 2 findings on the blood film.
2. Mention two possible DDx
3. What is the Treatment ?

1. Schistocytosis (helmet cells) / spur cells …
2. TTP/ HUS.
3. Plasmapheresis.

35 YO pt with Hx of 5 days of bloody diarrhea, confusion, now he has many ecchymosis.

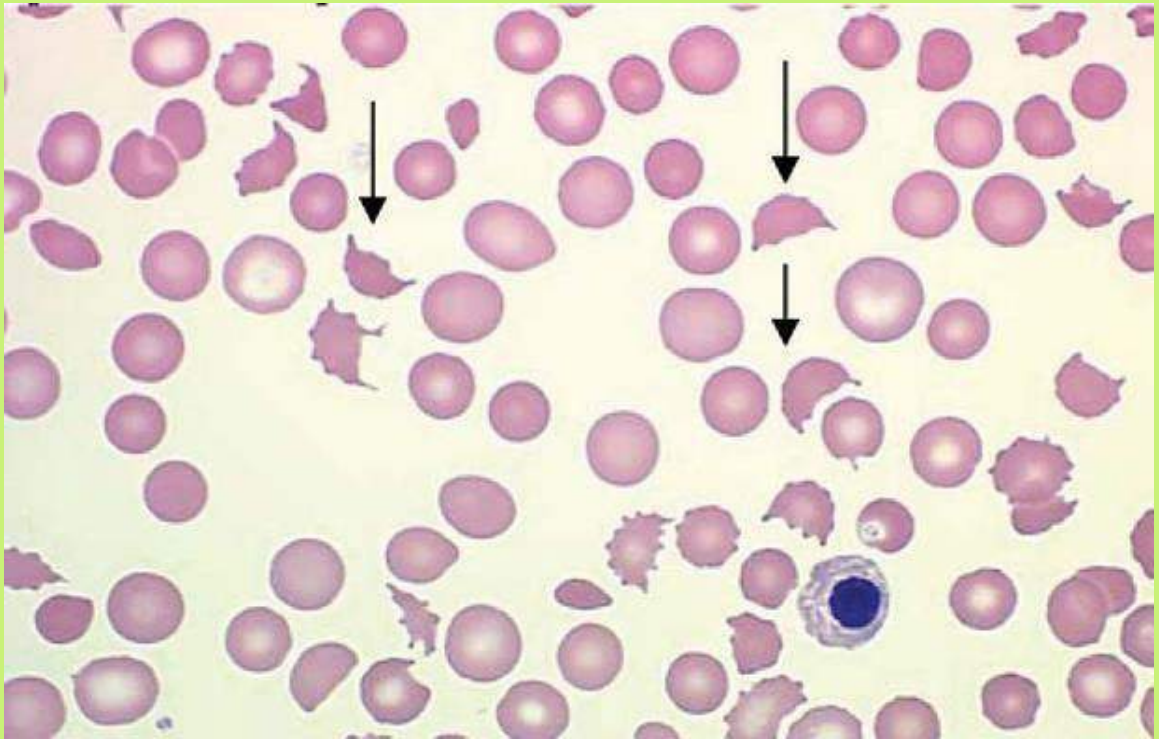
(High urea & creatinine, low Hb & Plts)

1) What is the diagnosis ?

2) Mention two abnormalities in blood film .

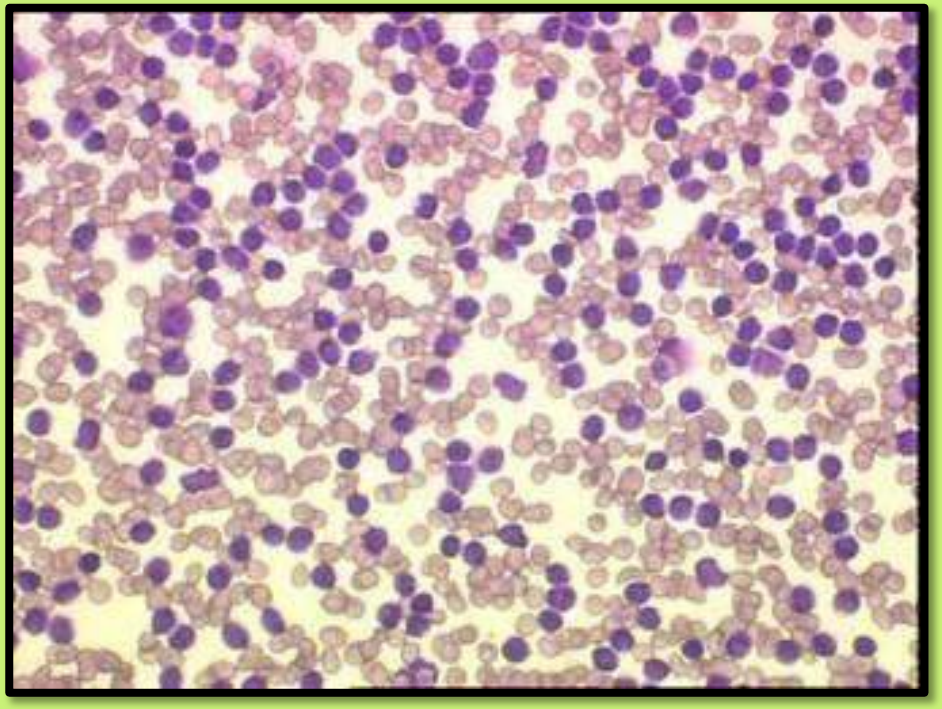
3) Mention two complications .

4) What is the treatment ?



1. TTP
2) Schistocytes & Burr Cells
3) - Bleeding tendency.
   - Multi organ failure.
4) Plasmapheresis.

Q11: Patient with general weakness & wt loss, he has low HB & platelet, his WBCs=75,000, he has cervical lymphadenopathy & spleenomegaly. What is your diagnosis?

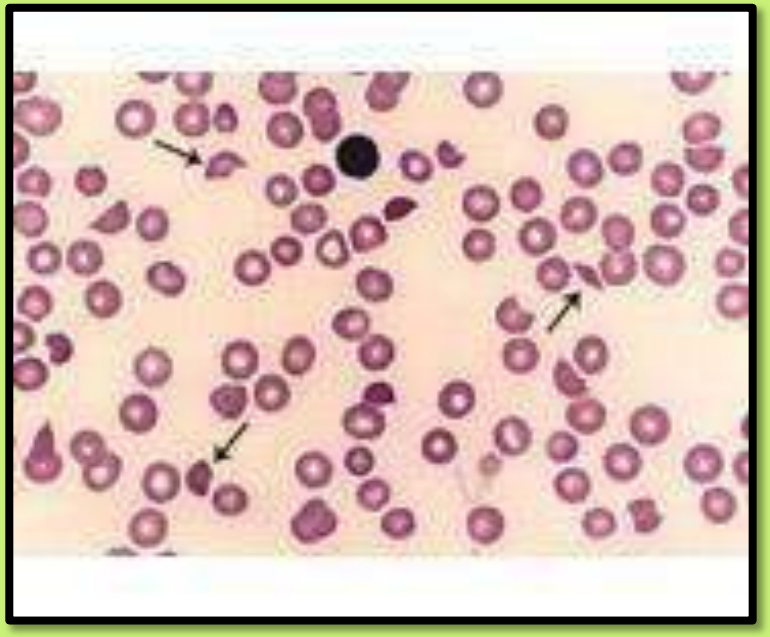


Chronic Lymphocytic Leukemia (NOT sure! …Hodgkin's lymphoma??)

Case #2

40 YO pt, already admitted to ICU, sepsis had oozing from sites of cannula. A lab result shows low platelets, anemia, low WBC's, fibrinogen low, PTT prolonged, INR increased.

1. What is the most likely Dx?
2. Mention 2 causes.
3. What is the primary tt?



1.DIC.

2.Cancers of … , Obstetrical problems, sepsis, massive injury

3.TREAT UNDERLYING DISEASE.

Q11: This patient with a prosthetic valve, developed this skin lesion.

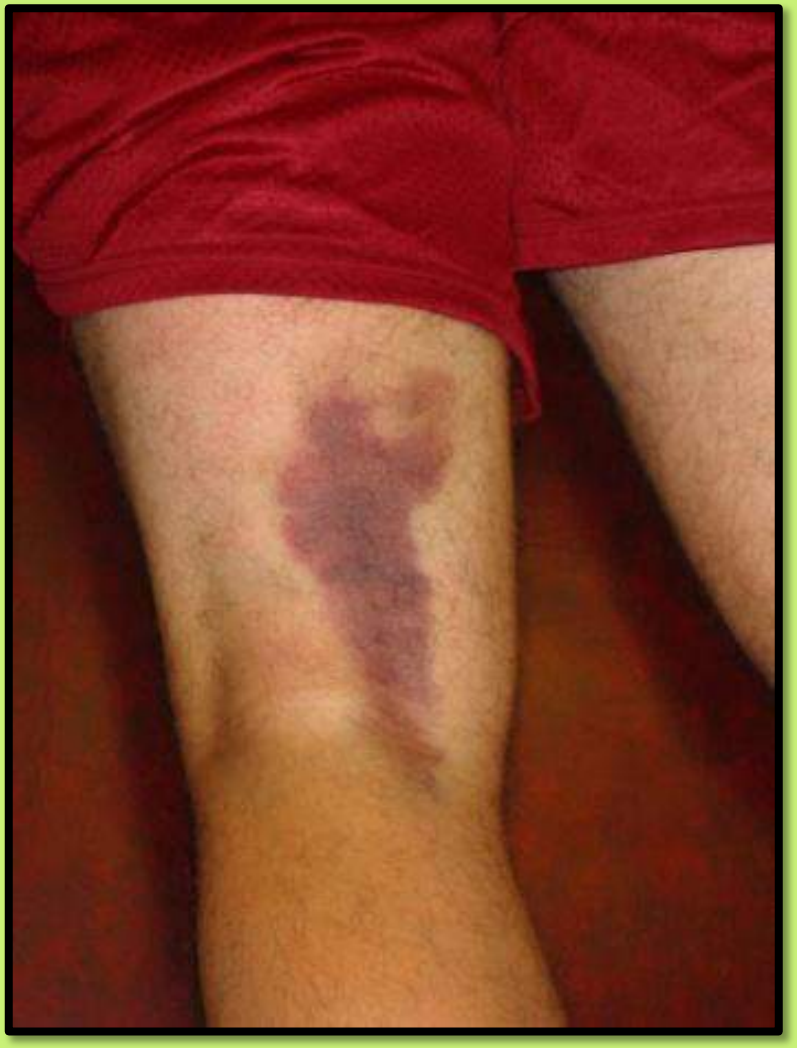
A-What is the cause?

B-What is the appropriate lab investigation?

A. Warfarin overdose

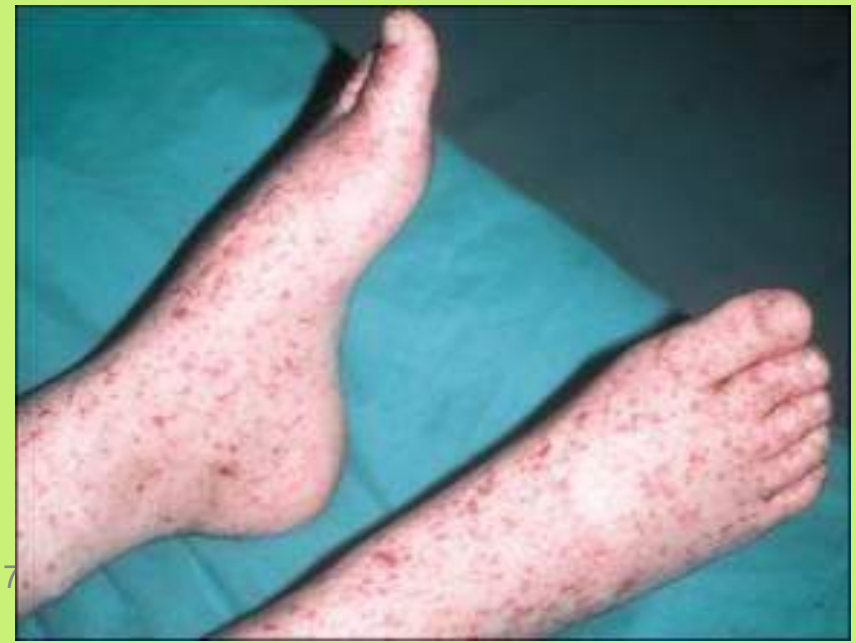
B. INR

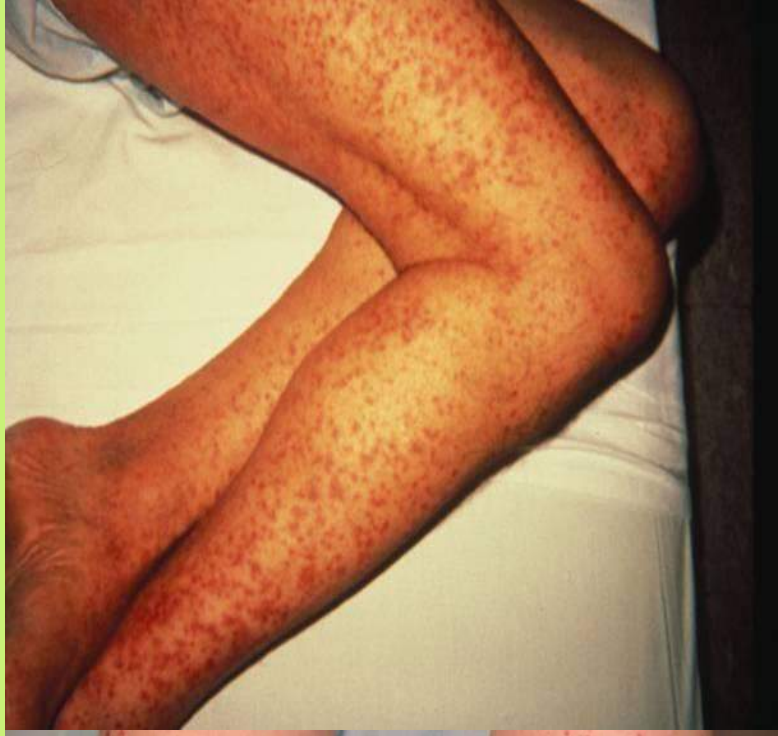
Q4: If PT & PTT are normal, what is the cause of this sign?

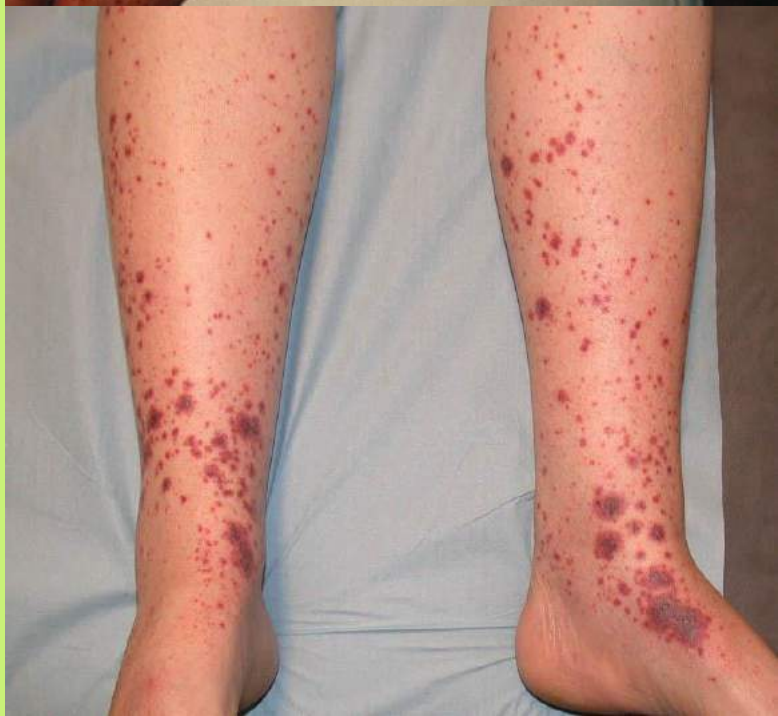


Thrombocytopenia .

This patient with a Hx of URTI of 1 week, had abdominal pain, hematuria, hematochezia & this picture. What's your diagnosis? what's the first lab test you order for this patient?

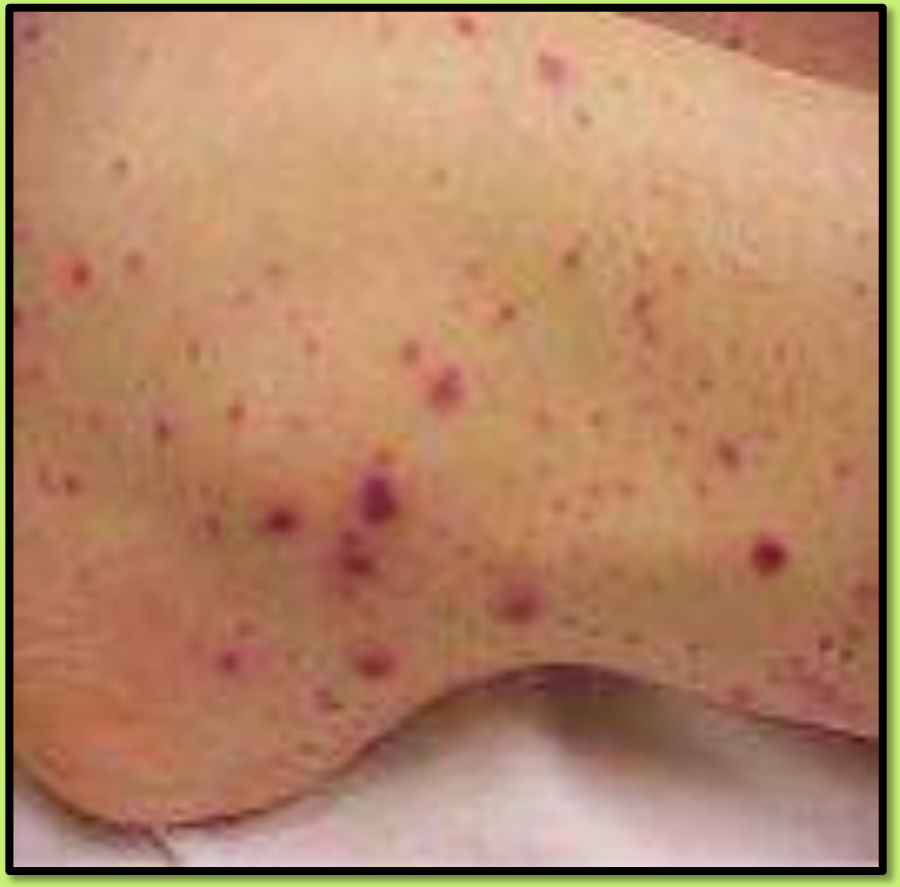






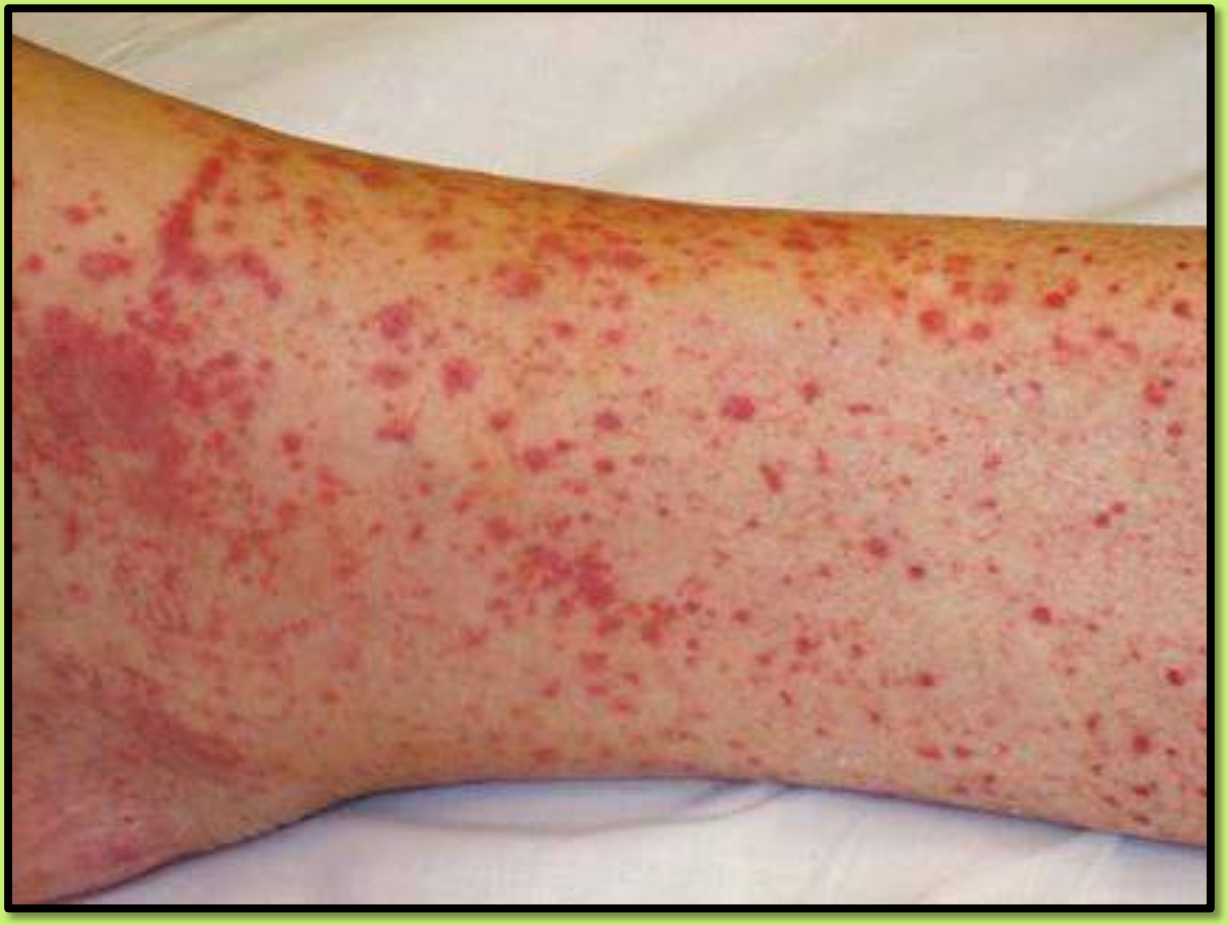
A. Henoch–Schönlein purpura (HSP)
B. CBC (Platelet count)

Q5: 30 YOfemale complain from easy bruise for several months & Recurrent epistaxsis, what is the type of skin rash?



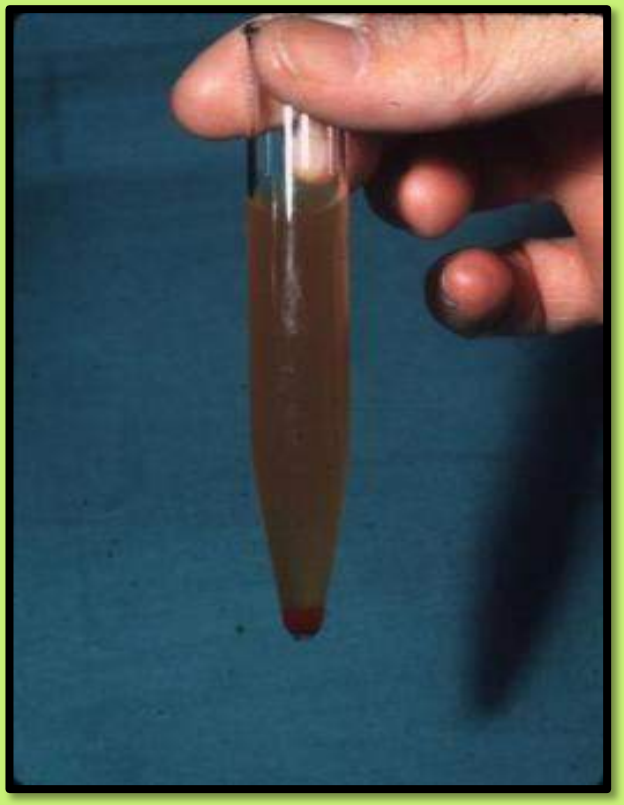
Petechial rash.

Q13: What's the finding in the blood film of this pt?



“fragmented RBCs” (not sure!).

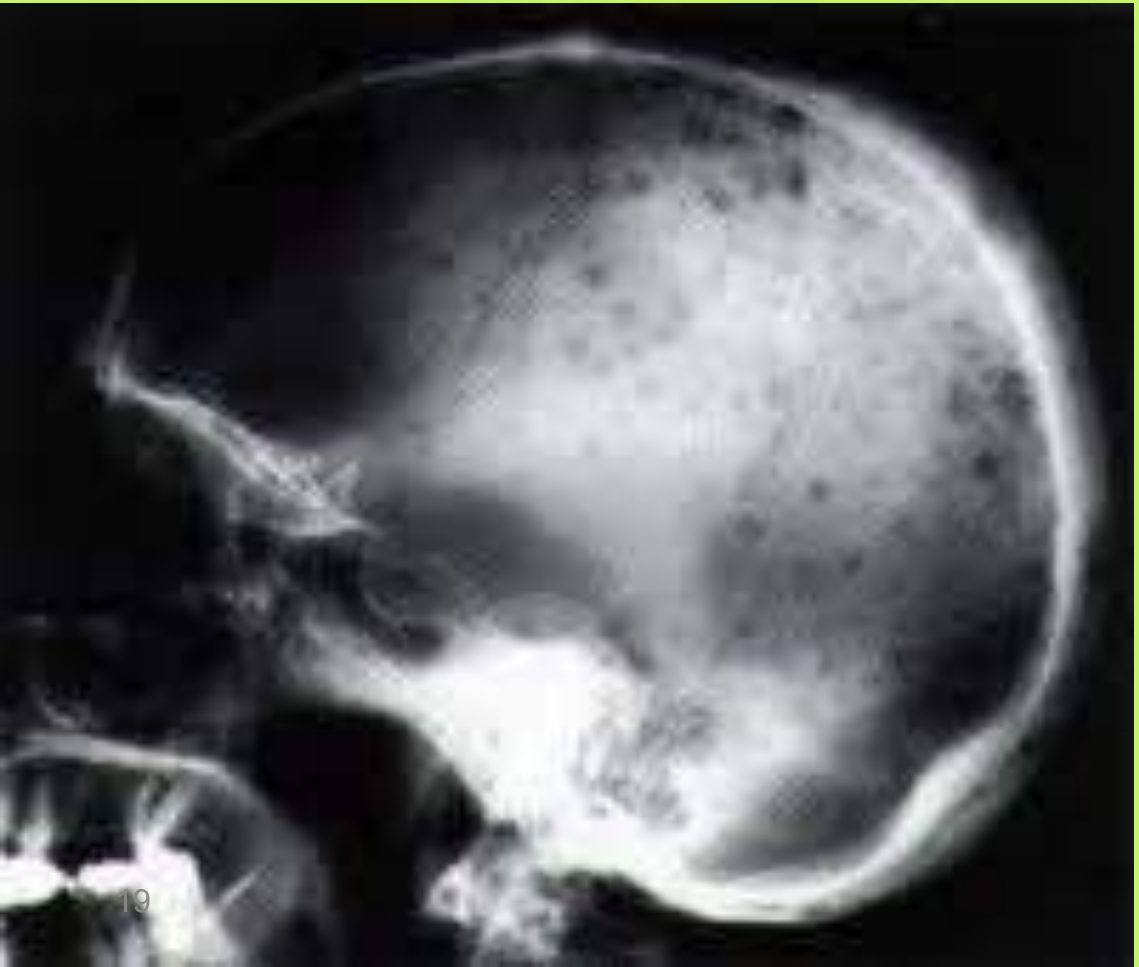
Q8: 45 YOpt complains of progressive fatigue, exertional dyspnea, jaundice, & with following picture.what the most likely Dx?

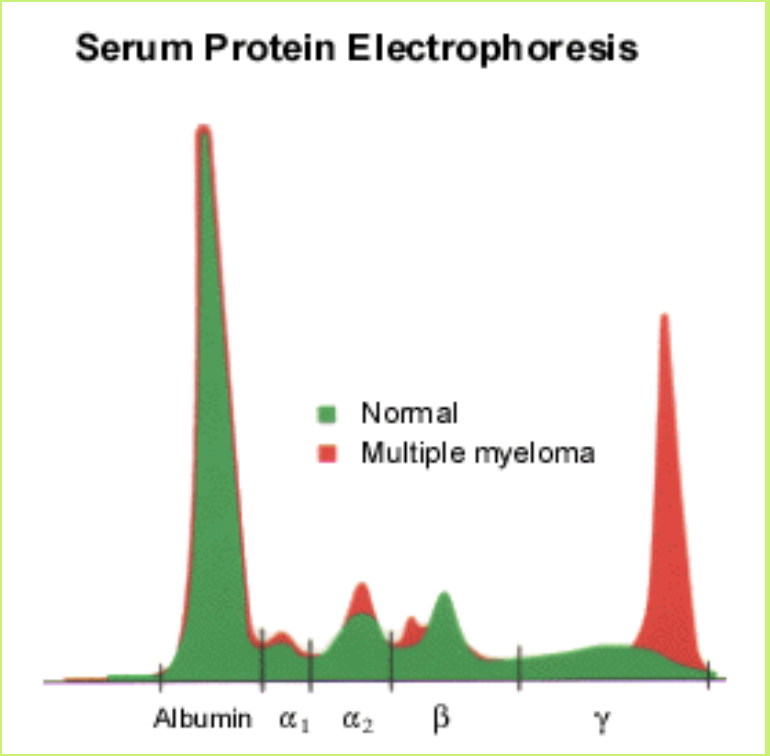


Hemolytic Anemia.

Q9: This X-ray was done for a 60-year old male who was C/O hypercalcemia, high ESR

1. What is your diagnosis?
2. Mention 2 tests to diagnose it?





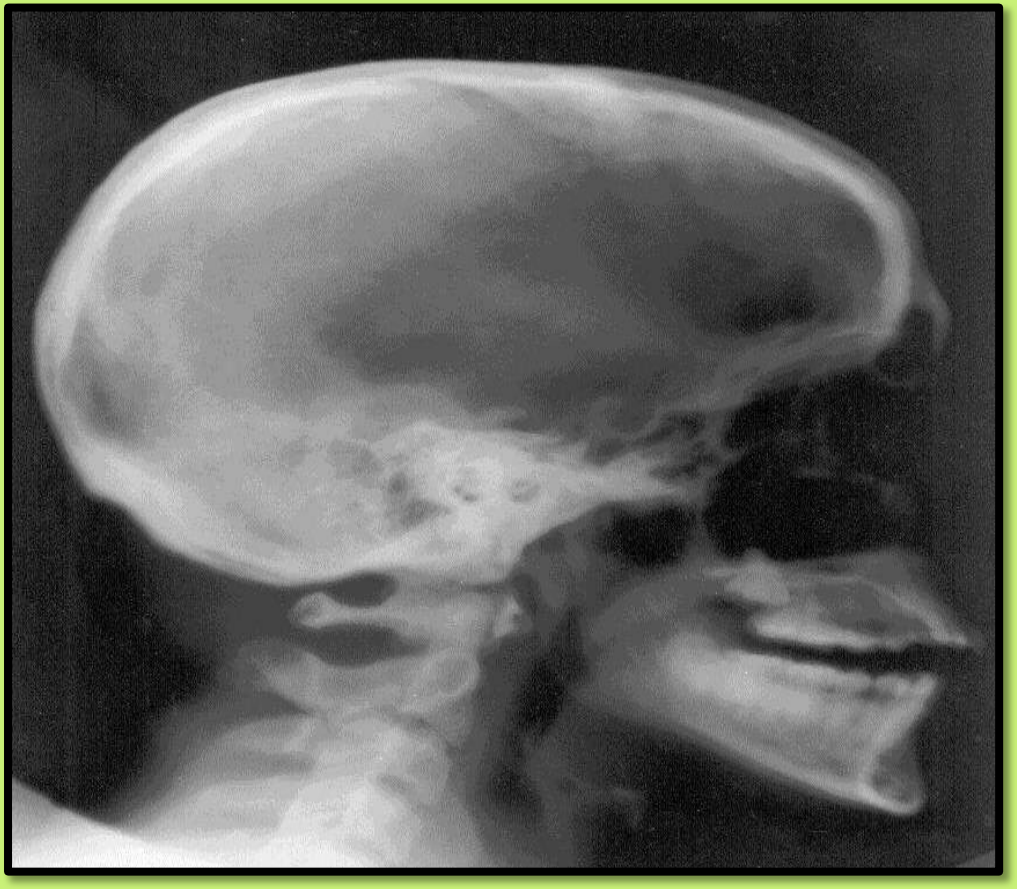
1. Multiple Myeloma

2.

a. Serum protein electrophoresis.

b. Bone marrow biopsy/aspiration.

Q13: Patient has normal protein level & protein electrophoresis with hyper-calcemia. He has kidney stones. What's the blood test needed to confirm the Dx.?



He has multiple myloma, & kidney stones are uric acid stones due to hyperurecemia, blood test is blood film & the finding will be (rouleaux RBCs).

Q6: A 23 YO female was presented with purpuric & petechial rash, especially on the extremities , Gum bleeding, Menorrhagia & leg ecchymoses, with a Hx of epistaxis.

A. What is the most probable Dx?
B. Mention 2 predicted abnormalities on her CBC testing.

A. ITP.

B. low platelets & low Hb.

Case #2

A pt presented with pallor, fatigue, cold intolerance, ... The pt also had Vitiligo. [They gave us the result of the pt's CBC which showed that the pt had pan-cytopenia; all the blood elements are low].

1 What is the most probable diagnosis?
2 What's the cause of the patient's "cold intolerance"?
3 What finding can you see in an upper GI endoscopy for this patient?
4 What is the drug used to treat this condition?
5 Mention the route of administration for this drug.

Answers

1- Pernicious anemia.

2- Hashimoto's thyroiditis.

3- Chronic atrophic gastritis.

4- Vit B12 supplements.

5- Intramuscular.

Case #2

A 29 YO previously healthy female pt presented to the OPC for fatigue & pallor. On examination she is mildly jaundiced, & spleen is mildly palpable 2 inches below the costal margin. Liver span in mildly increased, & on CBC her Hb is severely decreased, her LDH was highly increases. After performing blood film, spherocytic & koilocytic changes were observed. The resident suspected this was hemolytic anemia.

1. What is your next investigation to reach a Dx?
2. The pt was given prednisolone to treat the condition. Based on which test was this drug given?
3. Mention 3 side effects for the drug.

1. Osmolarity Fragility Test.
2. Coombs test.
3. Wt gain, Central Obesity, Osteoporosis, Immunity suppression, DM …

Case #2

73 YOwoman with known risk factor (HTN) for cerebrovascular disease who developed a TIA like symptom & vertigo , & headache. Splenomegaly are also finding.

WBC x 109/L 18.0 [4-11], Hb g/L 200 [140-180], HCt 0.62 [.42-.51], MCV fl 75 [80-100], Platelets x 109/L 850 [150-450], Neuts x 109/L 14.6 [2-7.5], Lymphs x 109/L 2.0 [1.5-4], Monos x 109/L 0.8 [0.2-0.8], Eos x 109/L 0.1 [0-0.7], Basos x 109/L 0.5 [0-0.1].

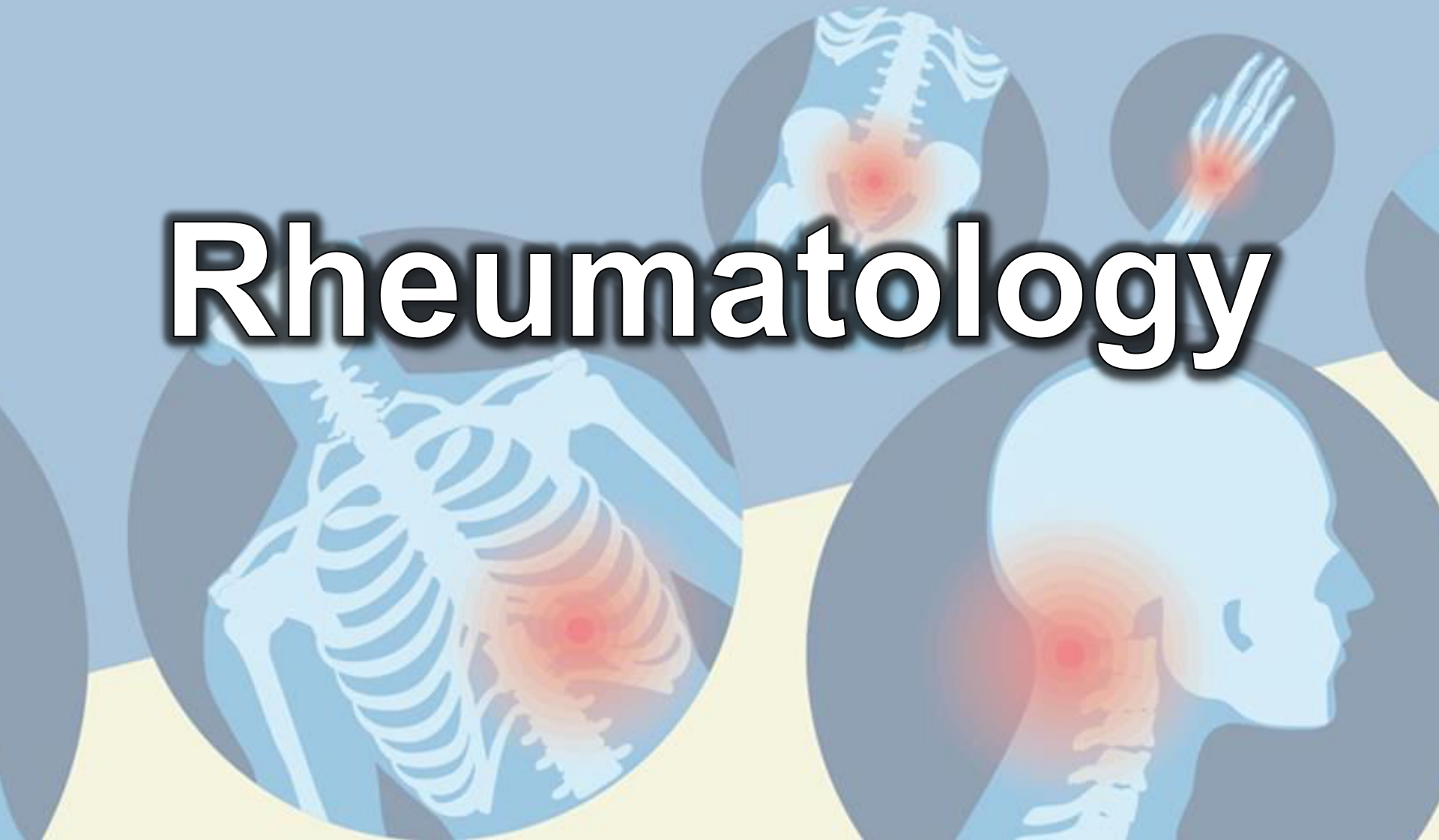
Q1: What is the most likely Dx?

Q2: mention 2 common secondary causes of Dx.

Q3: mention 2 lines of treatment.

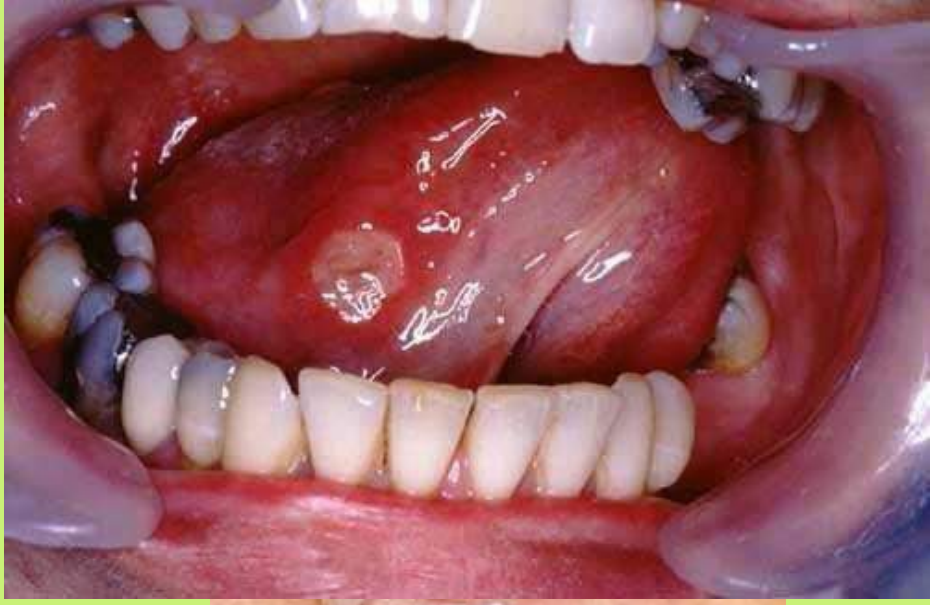
1.Polycythemia rubra vera.
2.Tobacco abuse, Renal Cell Carcinoma, Chronic heart or lung disease.
3.Phlebotomy “venesection” , low-dose aspirin.

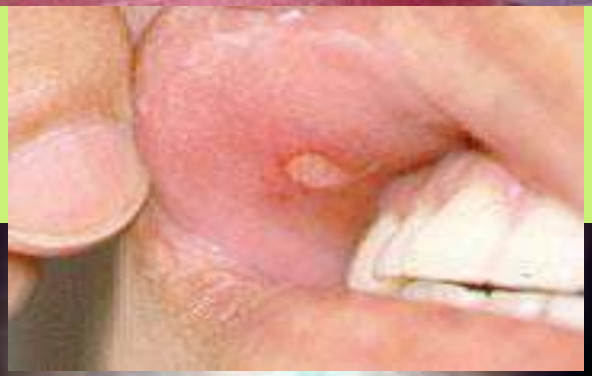
Rheumatology

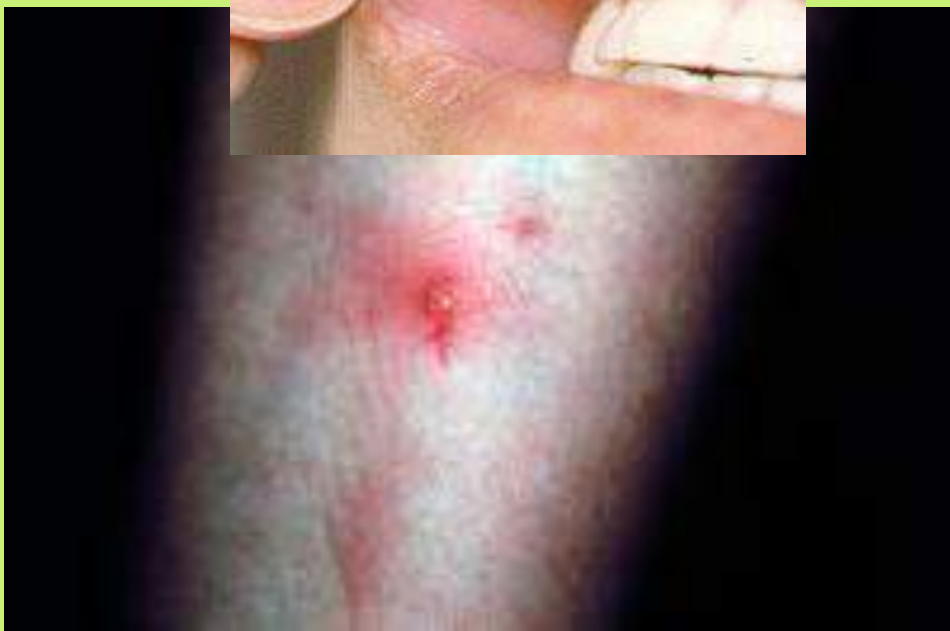


This 23-year old patient developed this skin lesion after a needle prick. had this mouth lesion.

1. What's the name of the test?
2. What's your Dx?
3. Mention the clinical Manifestations of this disease?





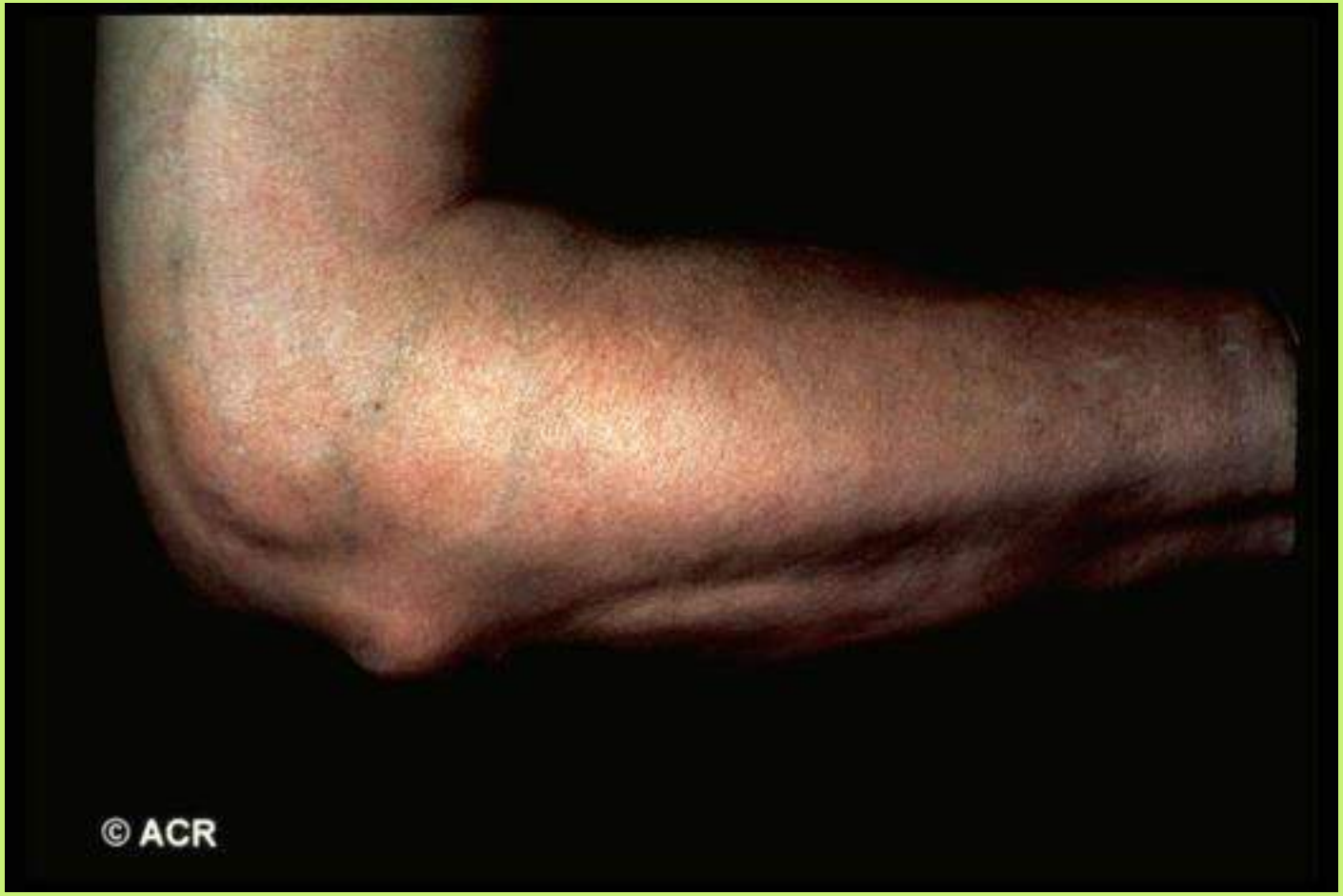


1. Pathergy Test

2. Behcet's disease.

3. Recurrent Oral and Genital Ulcers

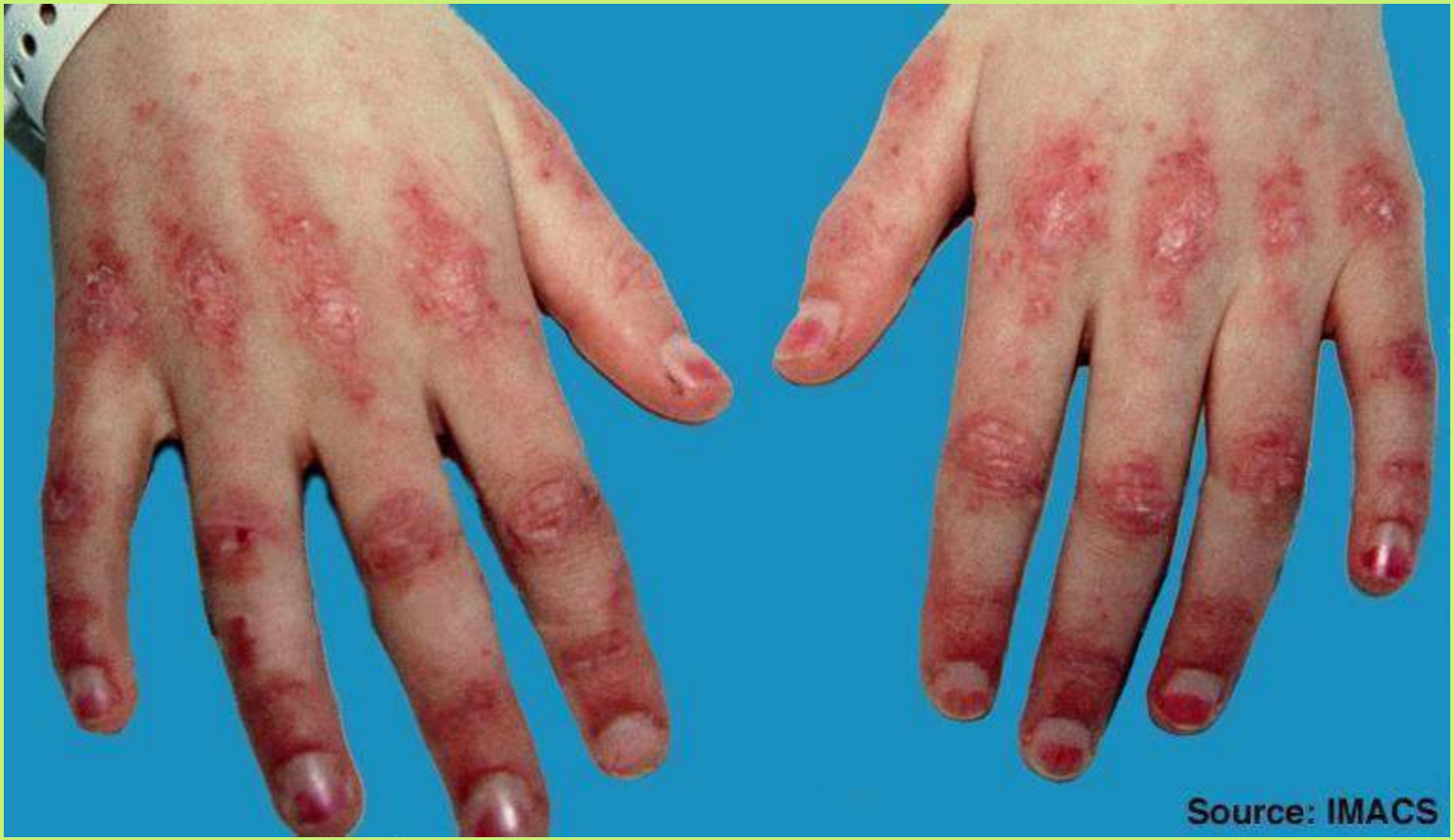
Q17: A-What is this finding?
B-How to confirm the diagnosis?



A. Rheumatoid nodule

B. RF, Anti-CCP

Q18: This patient complained of shoulder and hip weakness. What is your diagnosis?



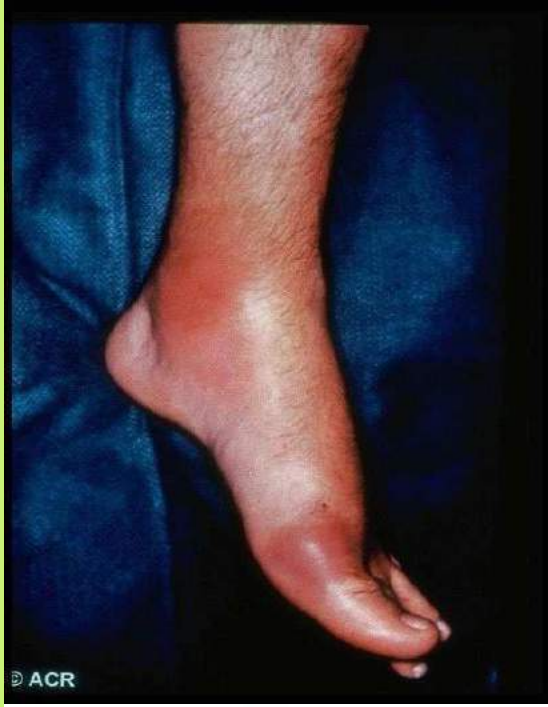
- Dermatomyositis (Idiopathic inflammatory myopathy).

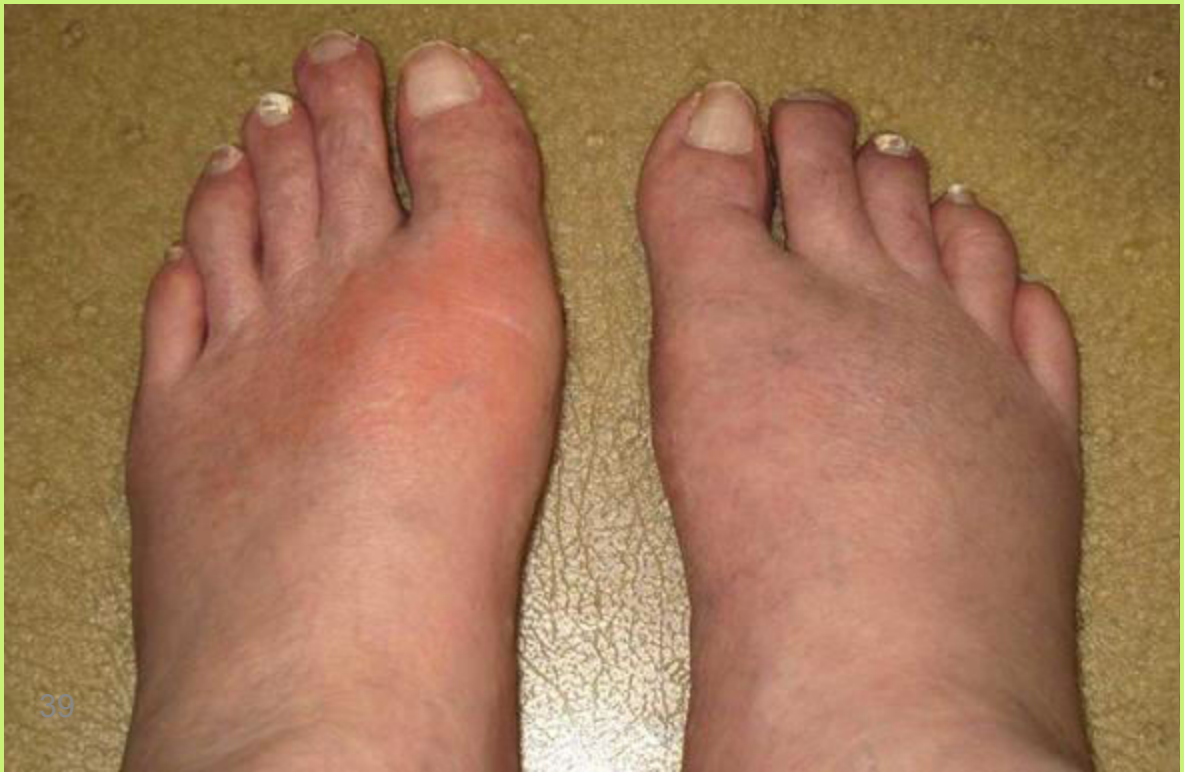
Q19: This patient presented with sudden onset pain in his big toe.

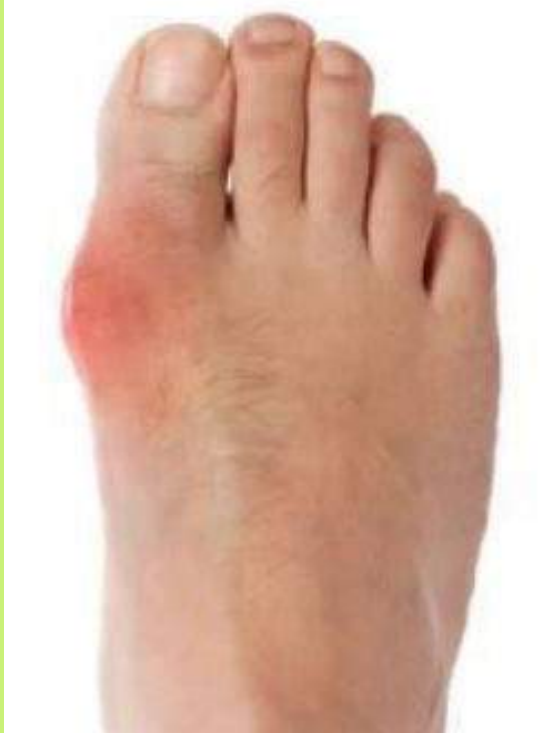
A-What is the diagnosis?

B-Mention a line of management

C- What blood test you want to order?





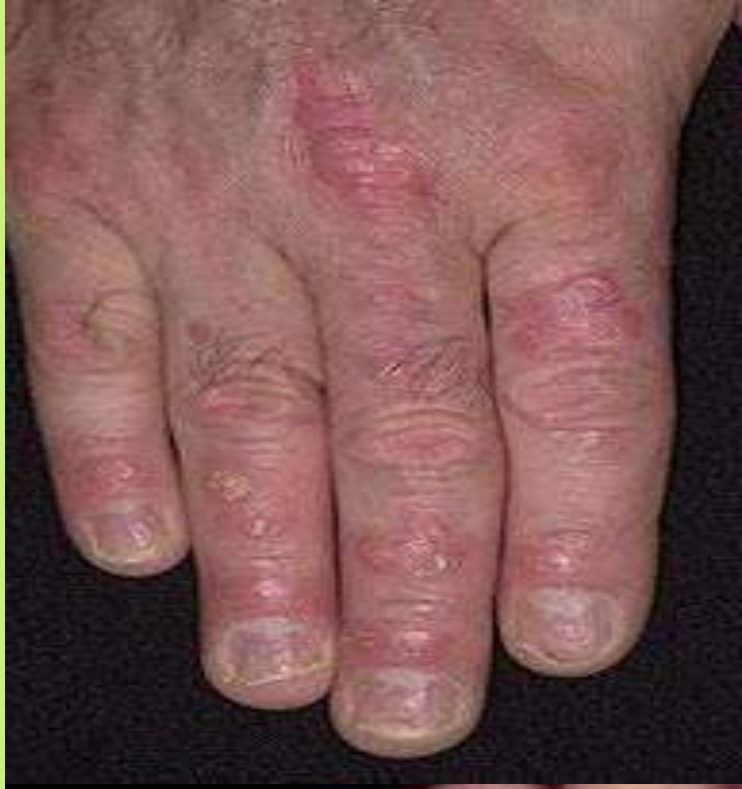


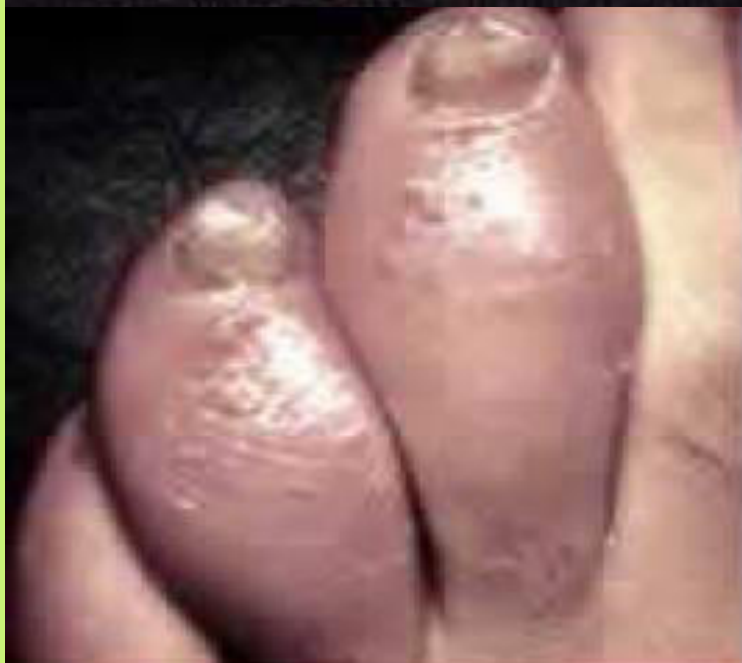
A. Gout (Acute gouty arithritis)

B. Steroids, NSAIDS, …

C. Serum uric acid levels

This patient also has non itchy scaly rash on both knees, what's your diagnosis?





Psoriatic arthritis

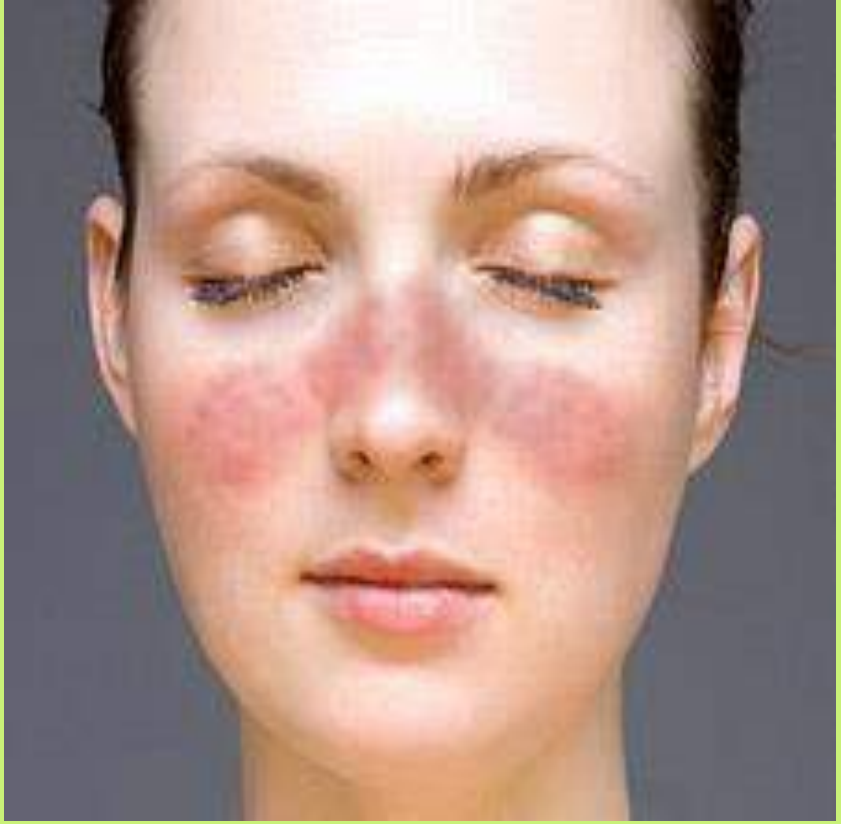
This patient had fever & joint pain, Hematuria and Hemoptysis:

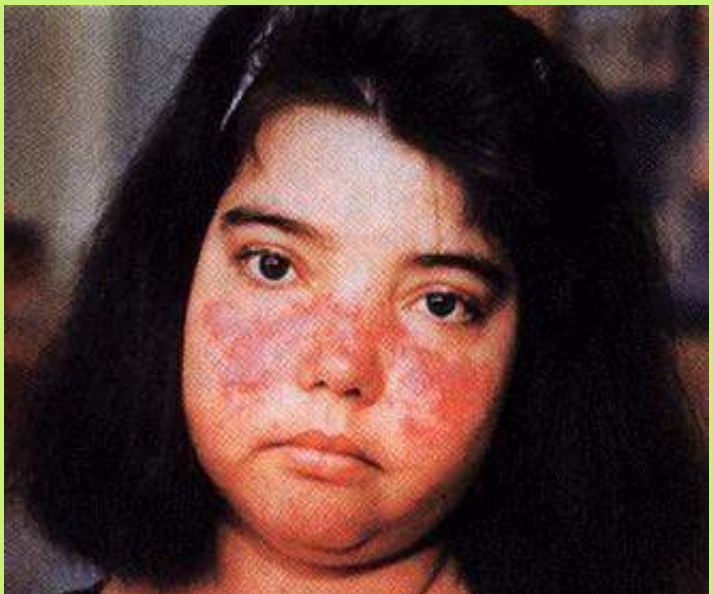
A. What is the Dx?

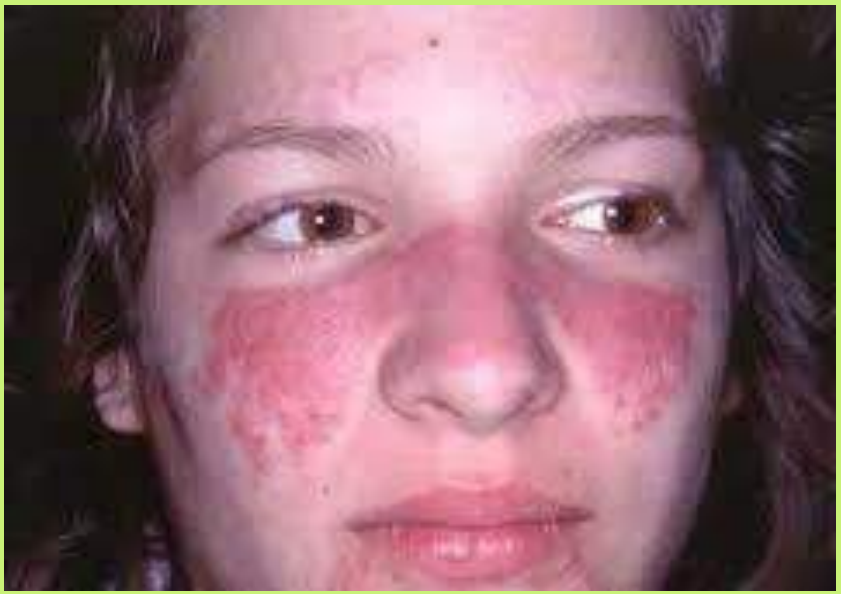
B. Mention a specific test for the diagnosis.

C. B. What is the cause of her respiratory problems?

D. Mention 2 other manifestations for this disease. (Signs or Symptoms)

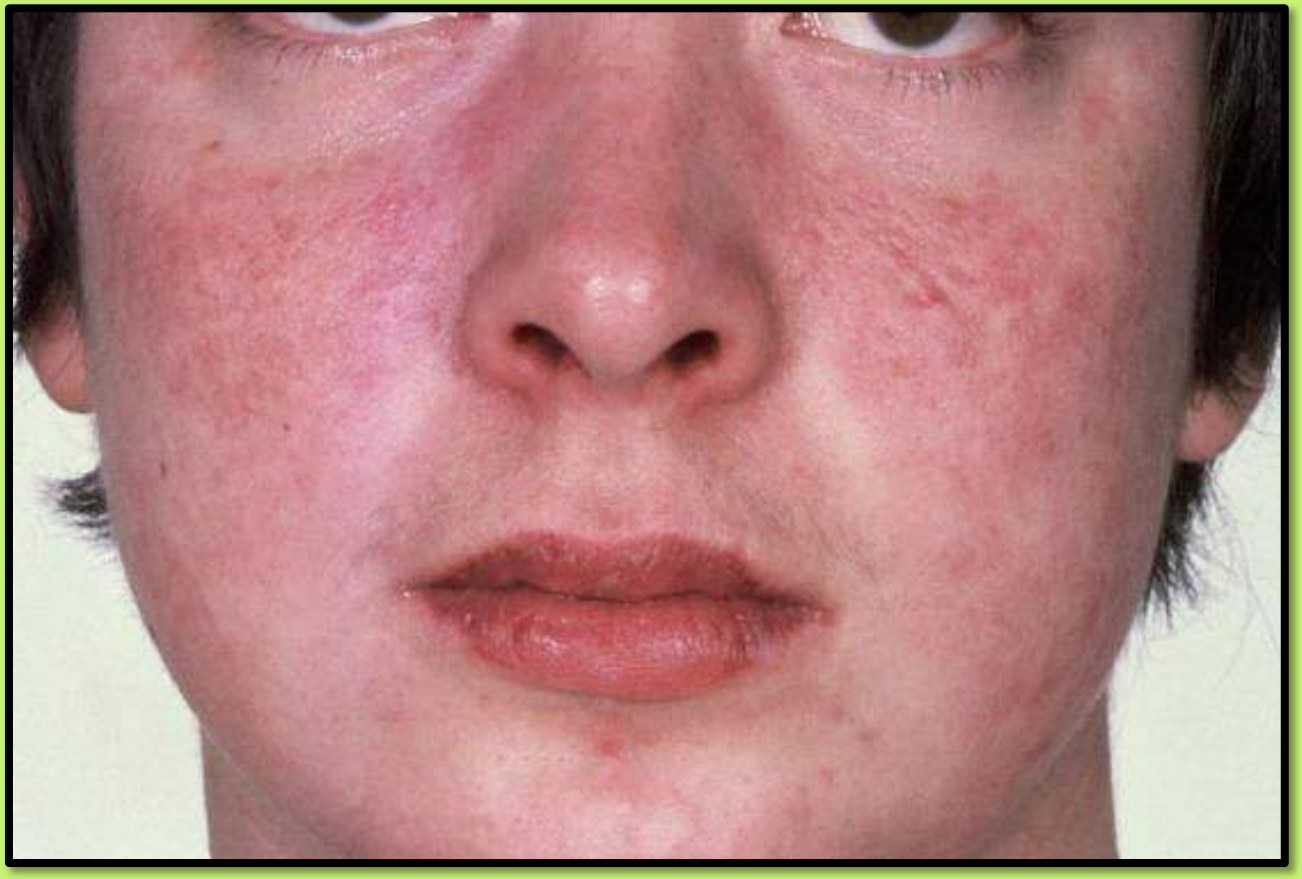






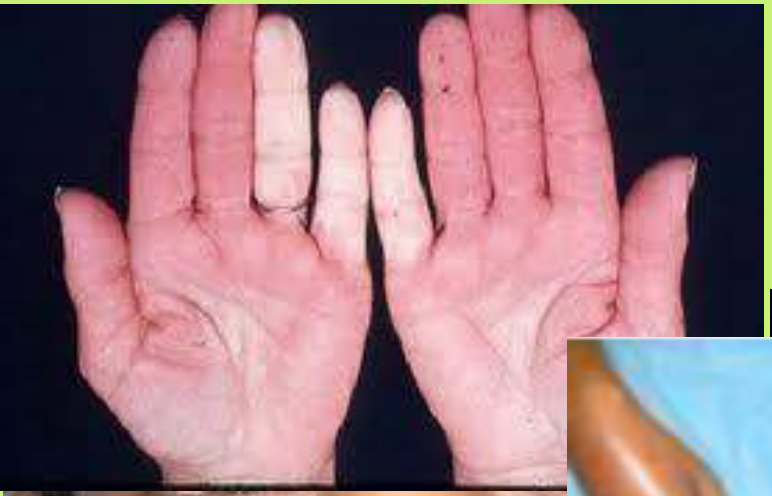
A. SLE
B. Anti ds-DNA antibodies, Anti Smith
C. Lung fibrosis
D. photosensitivity, discoid lupus, Neurological (psychosis, seizures),

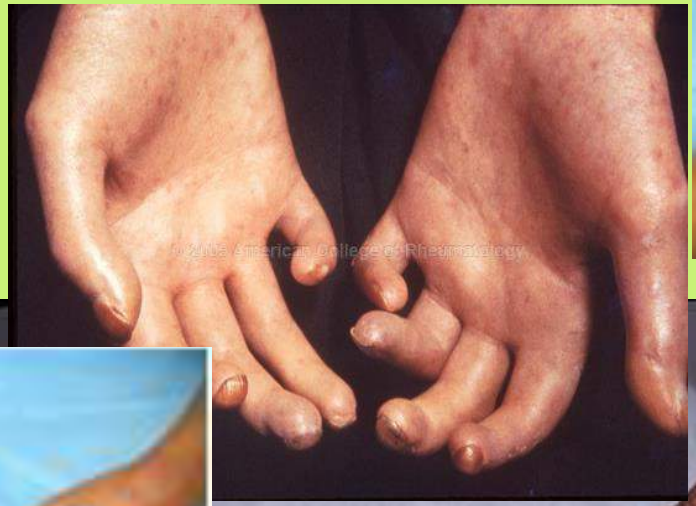
Q11: This pt presented with joint pain, protein urea, & anemia. What blood test are you going to order for her?

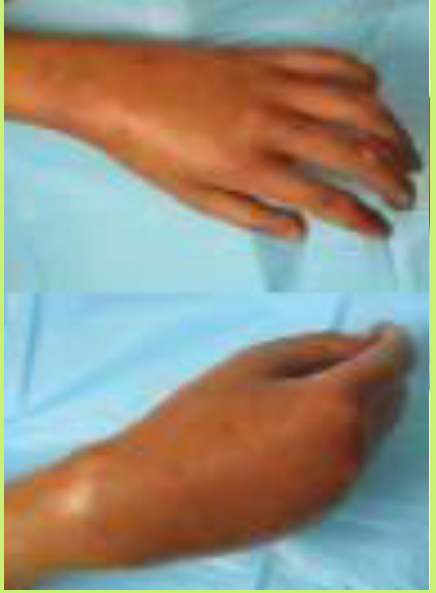


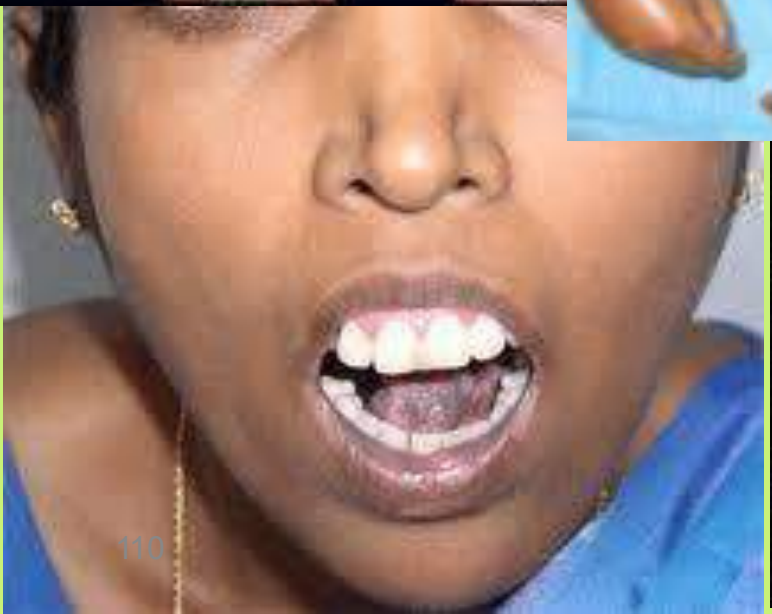
ANA, Anti-dsDNA, Anti-Smith.

A pt presented with difficulty swallowing & chest pain, what is your Dx?









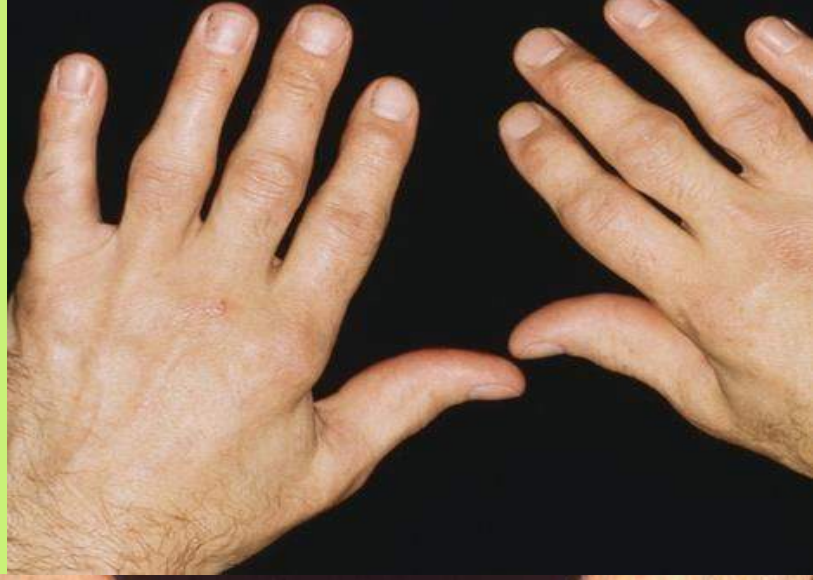
Scleroderma

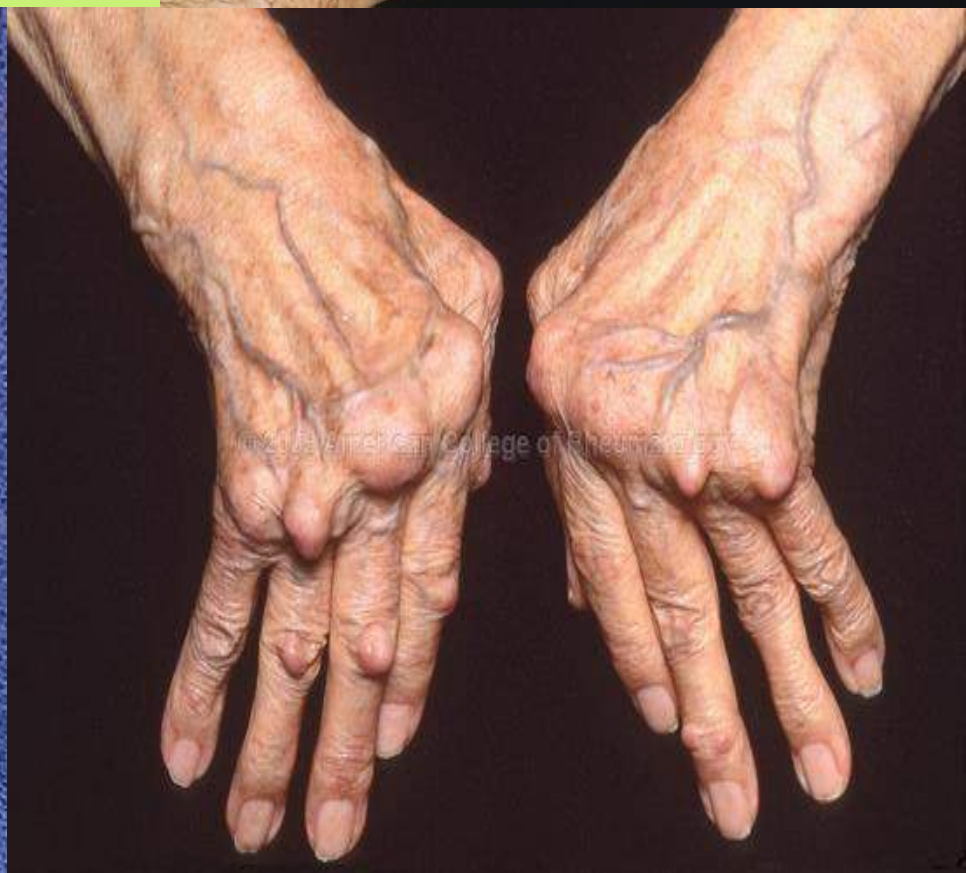
Q6: Female with joints pain in both hands & dyspnea.

- What is the diagnosis?

- What is the sign you look for on olecranon fossa?

- Mention 3 drugs which stop the progression of this disease?





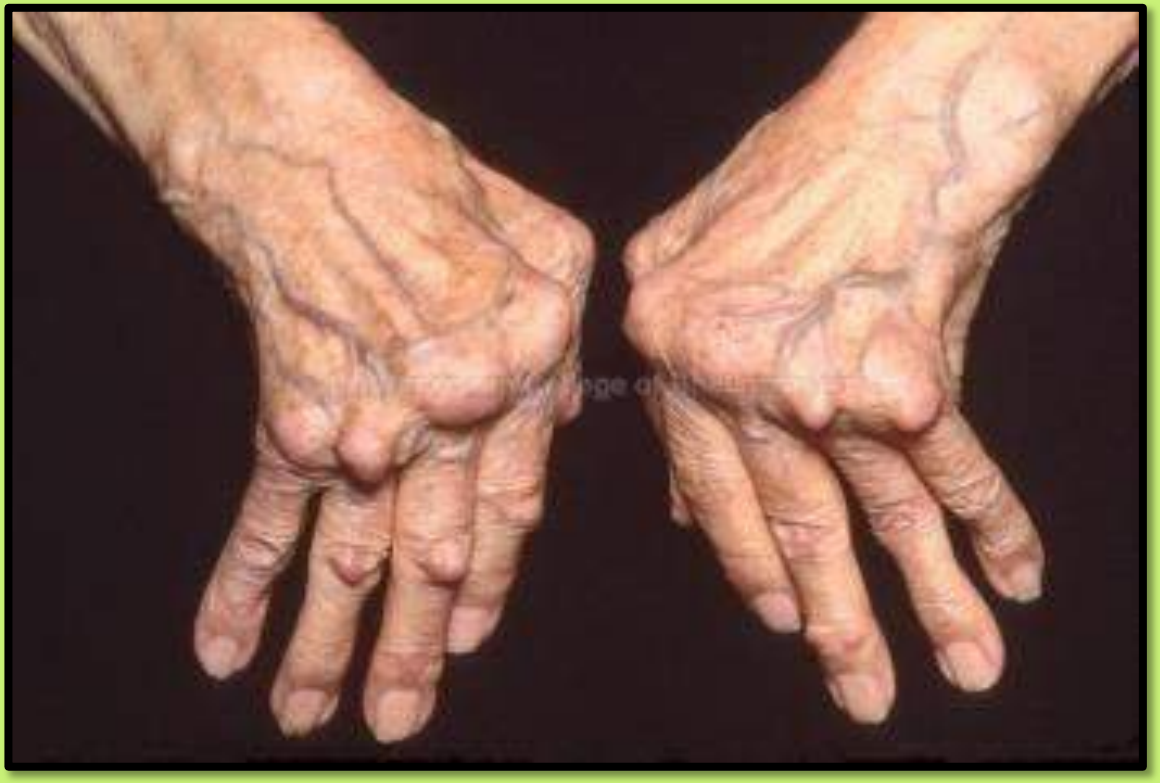
- Rheumatoid arthritis

- Subcutaneous rheumatoid nodules.

-

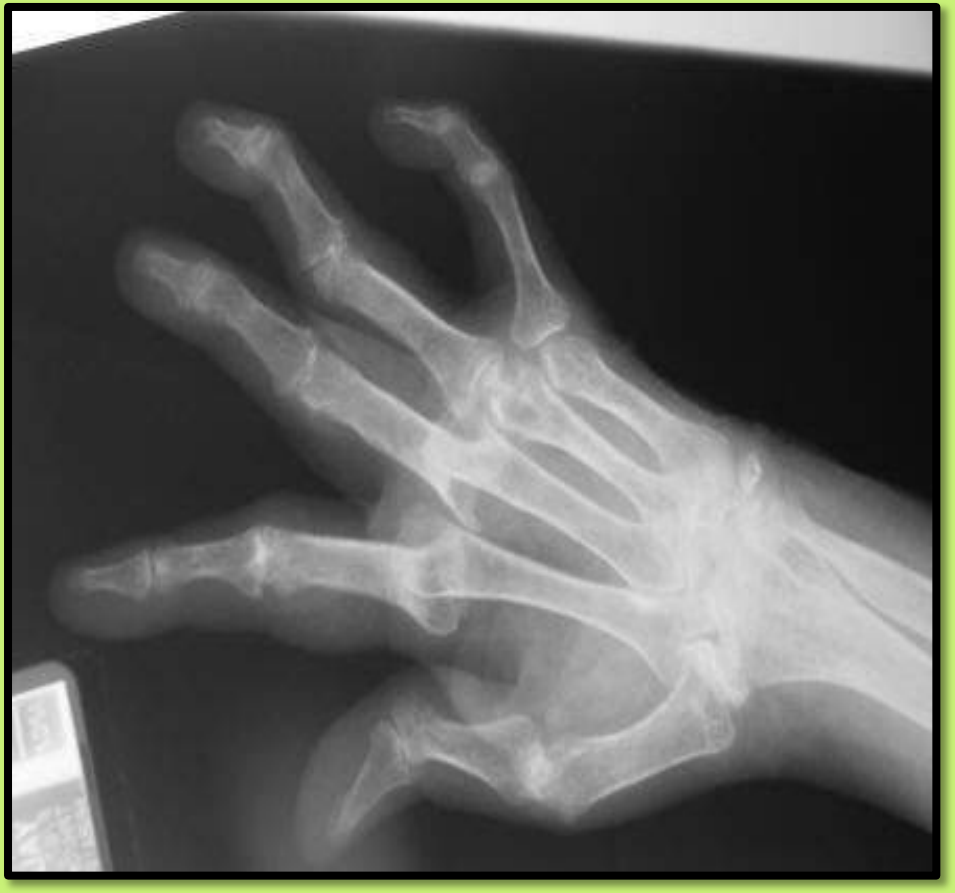
a. Methotrexate.
b. Infliximab.
c. Hydroxychloroquine.
d. Etanercept.

Q2: This photo is for the hand of a female pt who was diagnosed previously with Rheumatoid Arithritis. What deformity can you see in this photo? & What pulmonary manifestations can you expect in this pt?



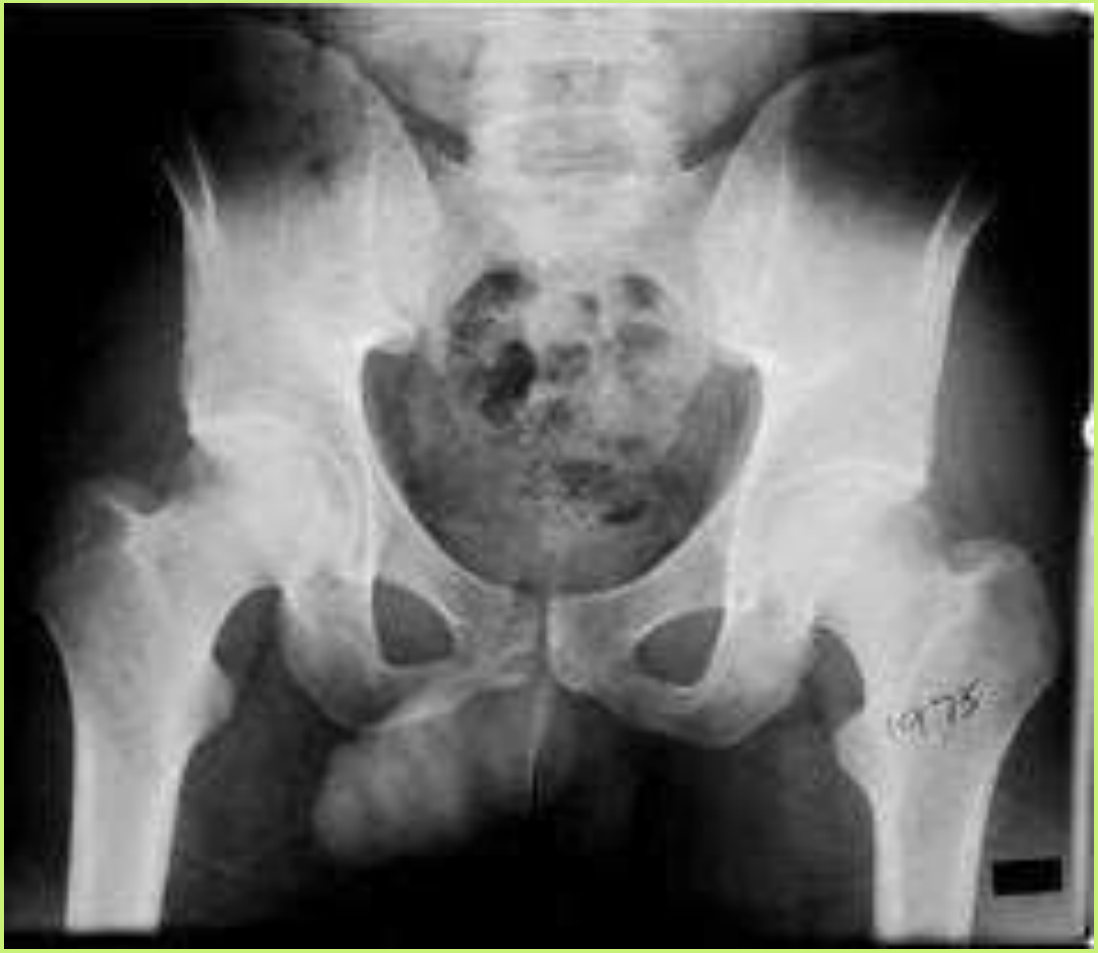
1. Ulnar Deviation.
2. Interstitial Lung Diseases [Lung Fibrosis]; Caplan's Syndrome - [Intrapulmonary Nodules].

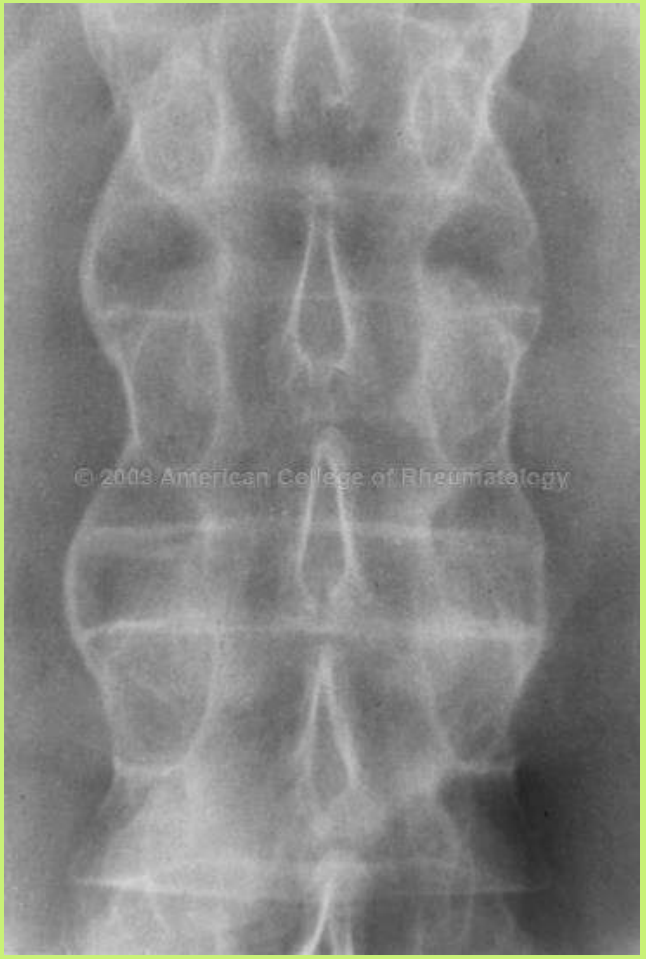
Q8: 56 YOpt complaining of general aches & pain, but also some stiffness & swelling in her both hands for the past 2 months that is worse in the morning. What's Your Dx.?



rheumatoid arithritis
(Swan neck and butonniere deformities are both present).

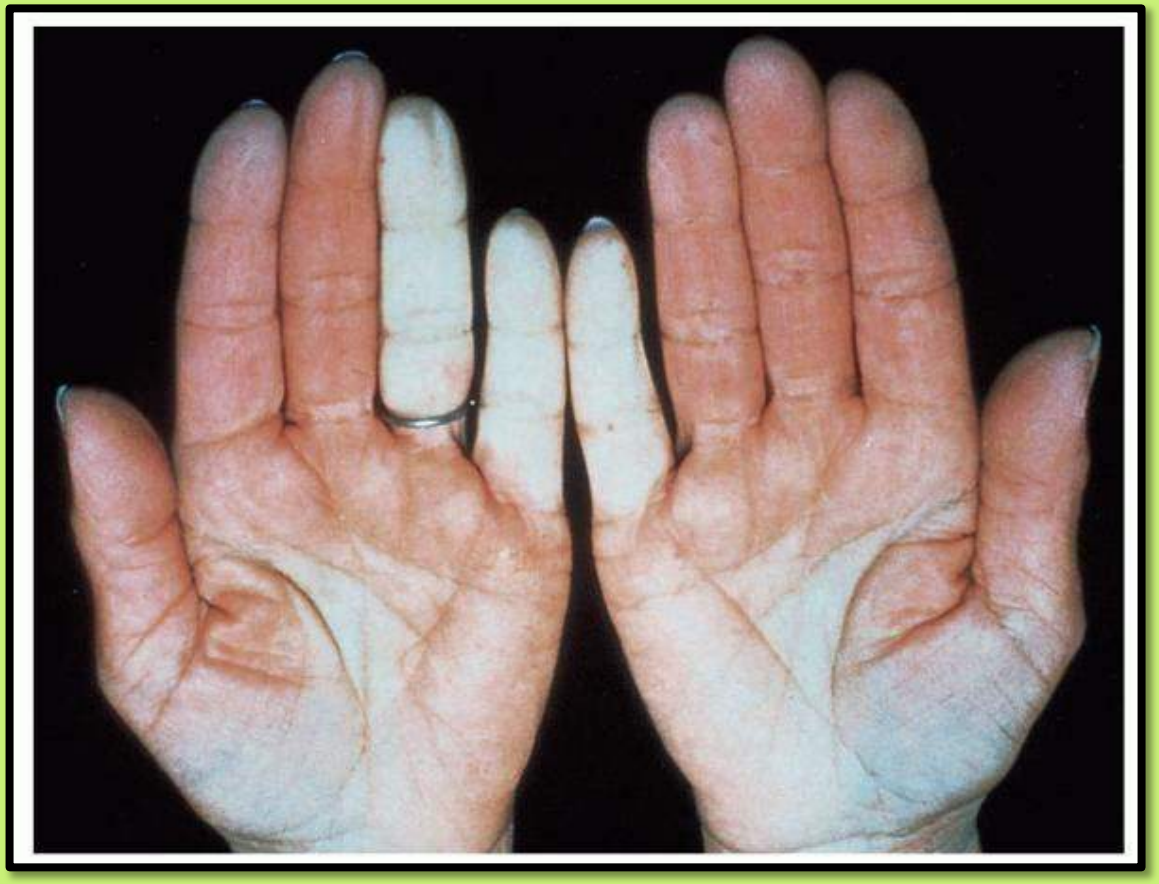
Q15: 28 YO Male patient presented with unilateral uveitis chronic lower back pain with morning stiffness which improves with exercise.. What is your Dx.?





Ankylosing Spondylitis.

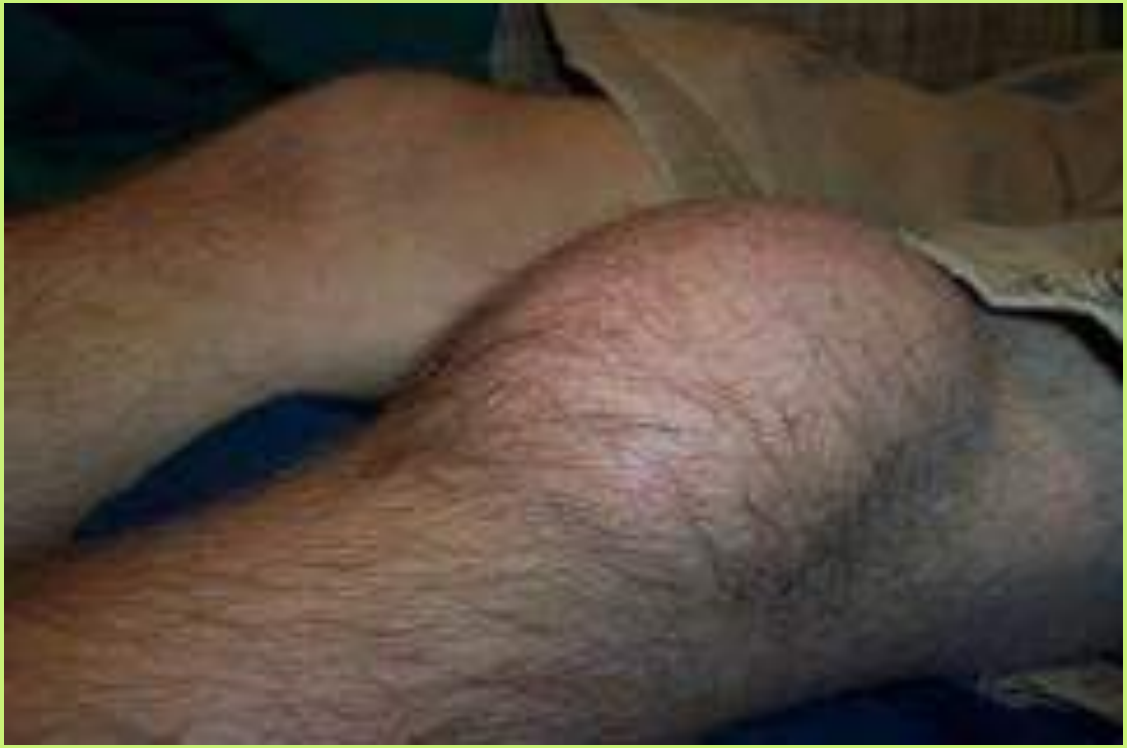
Q8: What is the name of this sign?

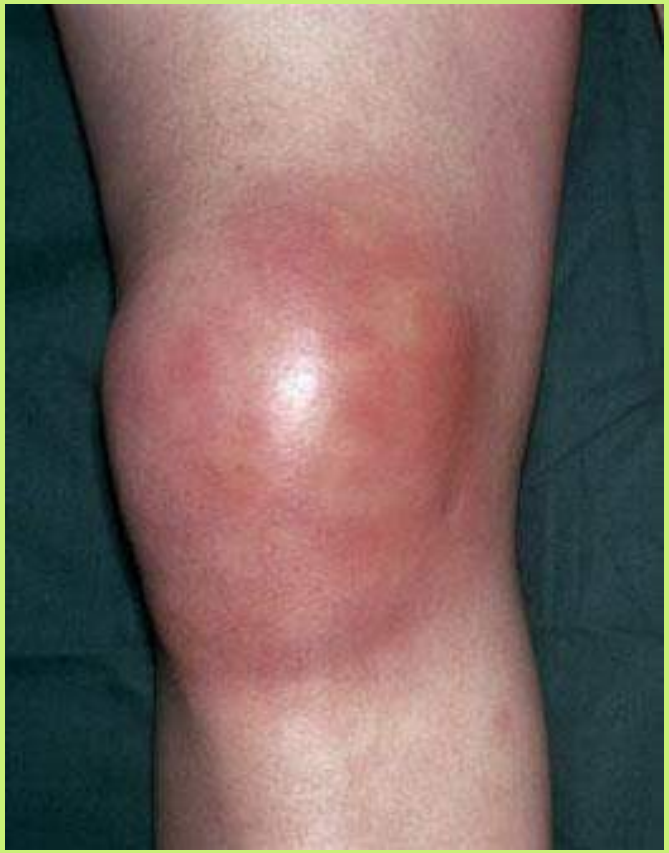


Raynaud's phenomenon.

Q4: A pt came to ER complaining of swelling in his left knee. He has no Hx of trauma or bleeding diathesis. on exam is left knee is swollen, warm, & very tender to palpation.

What is the Dx? & Give one investigation?





a- septic arthritis.
b- synovial fliud aspiration.

Case #1

A pt with hypertension (or DM) presented with right ankle swelling & pain. He had 2 previous similar conditions; one was in the same site, the other was on the left ankle. His CBC showed leukocytosis (WBC count = 10,000).

1-What is the most probable Dx?
2- Mention another DDx.
3 If a sample from the synovial fluid was aspirated, what is your confirmatory test?
4Mention 2 drugs for the treatment of the acute attack.

Answers

1- Gout.

2- Septic arthritis, Cellulitis, Pseudogout.

3Identification of monosodium urate crystals under polarized light microscopy; they have a needle-like morphology & strong negative birefringence.

4Steroids, NSAIDs, Colchicine.

Case #1

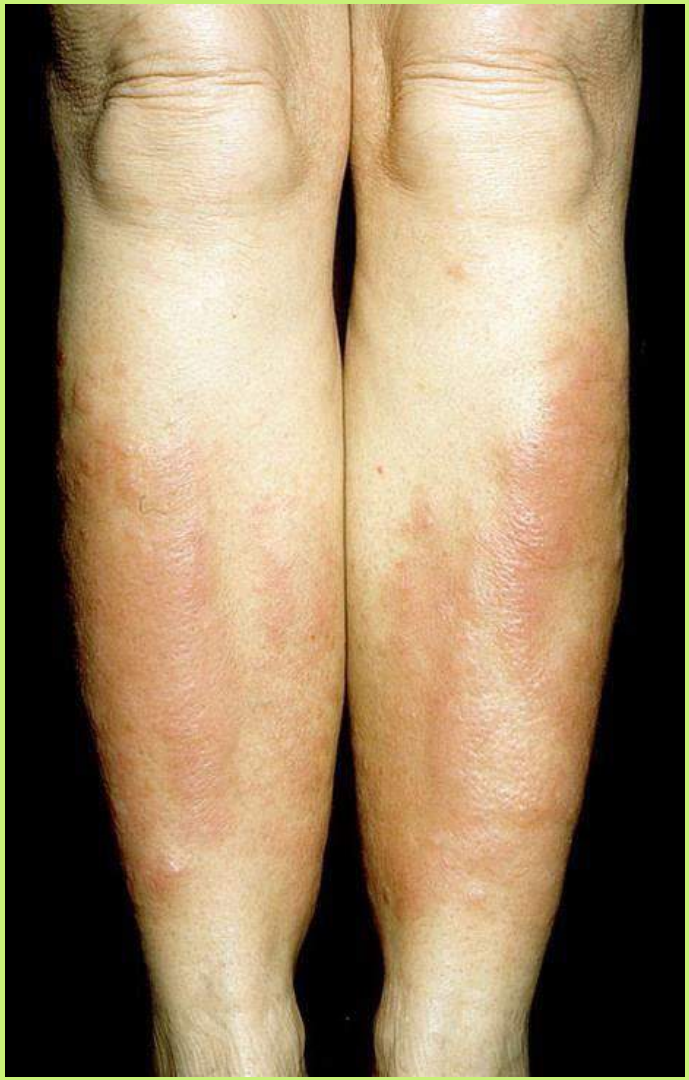
60 YO female pt, presented to the clinic complaining mainly of lower limb pain, bilateral but more severe on the right side, muscle weakness, she has difficulty standing up from chair without help, in addition to back & thigh pain, on examination there was tenderness mainly on right calf muscle. On investigations: Ca=2.1(normal range 2.2-2.4), low), alkaline phosphatase=600.

1- What is the diagnosis?
2- mention the most important 2 tests.
3- give 2 modalities of treatment.

1 Osteomalacia.
2 Ca+2 & V.D levels.
3 Ca+2 supplement and V.D


Endocrine

Q14: This patient had thyrotoxicosis, what is this lesion?

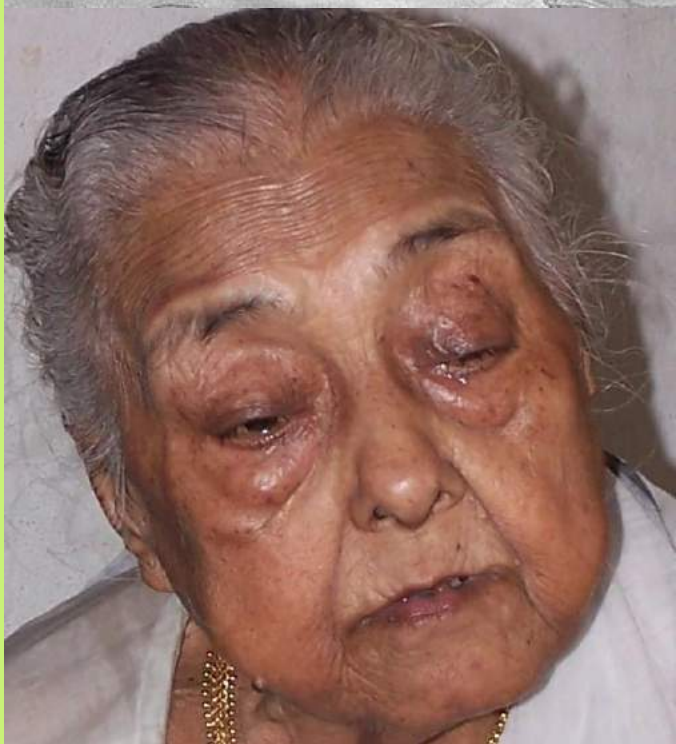


Bilateral pretibial myxedema

Q4: This patient came with constipation & wt gain, hair loss and weight gain.

A. What is the test you want to do?

B. mention 2 cardiac complications for it.

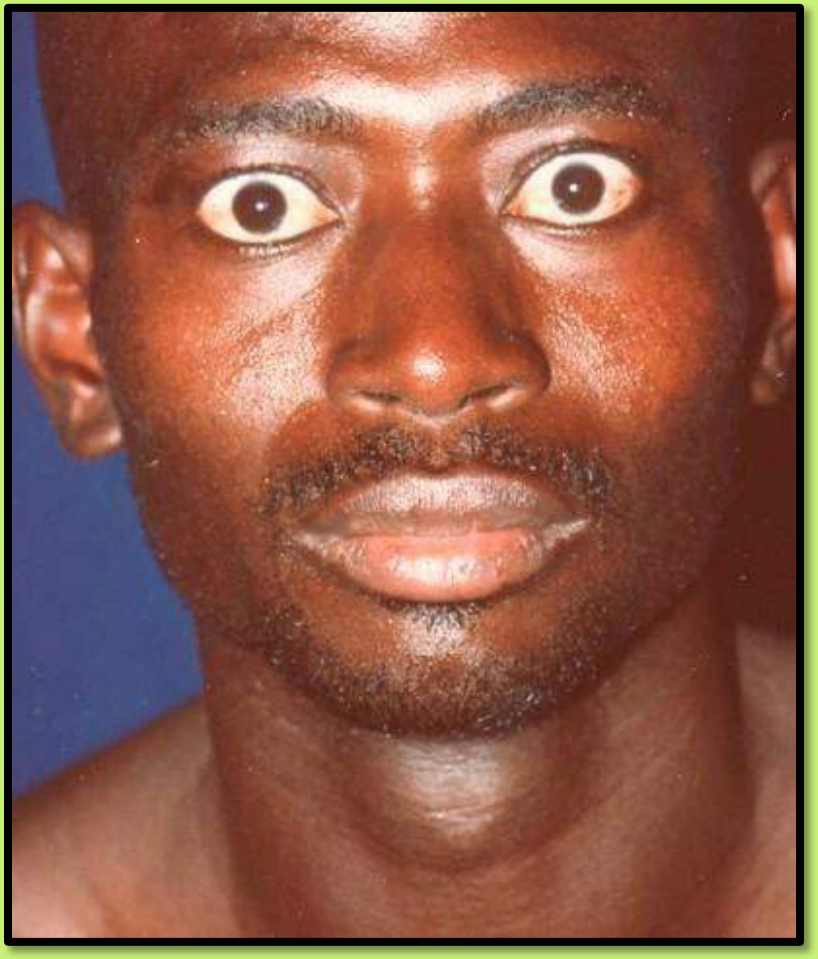


A. Thyroid function test

B.

1. Hypertension.
2. Cardiomegaly.
3. Bradycardia.

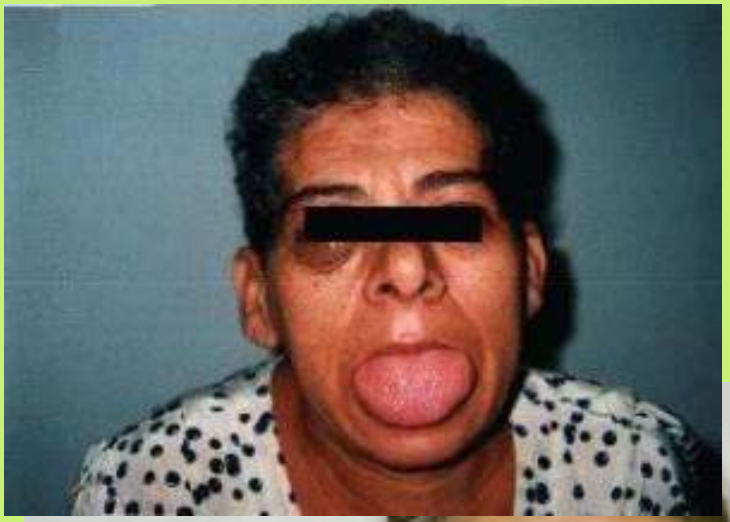
Q8: a pt presented with palpitation & tachycardia, sweating & heat intolerance. what is the diagnostic test? & what is the main feature in this figure?

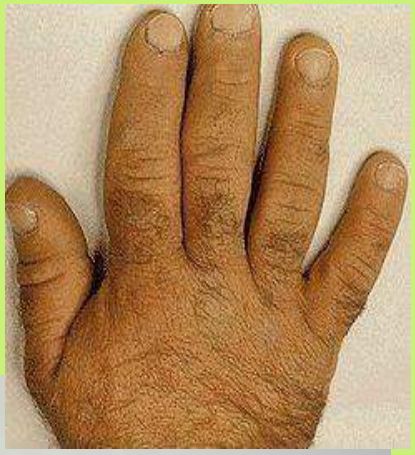


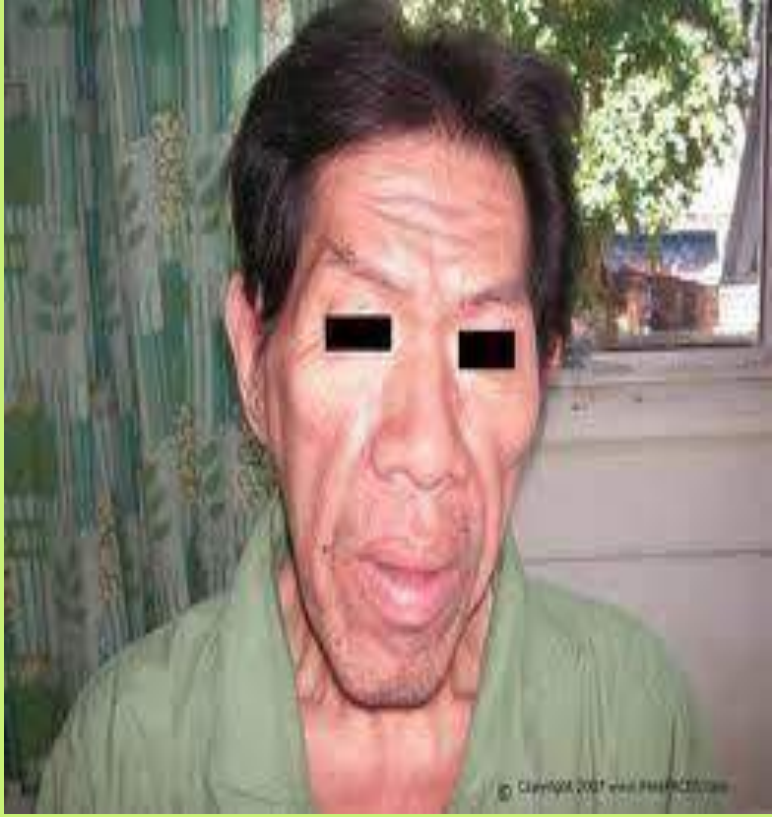
1- Thyroid function test.

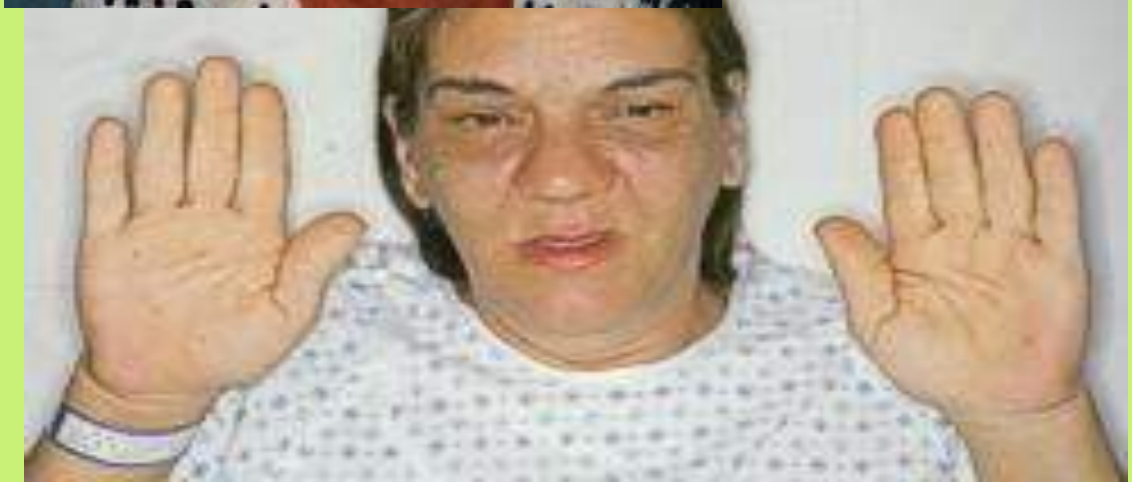
2- Exophthalmus.

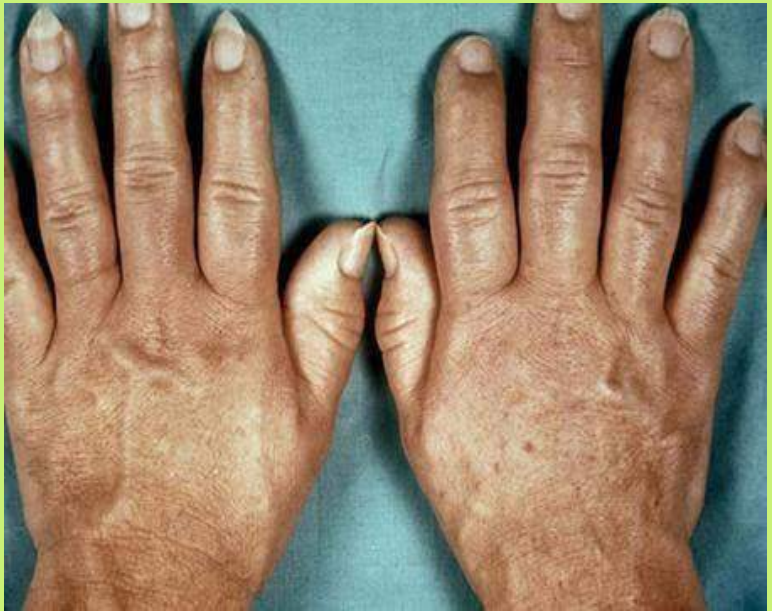
This patient has hypertension & DM, and vision problem, what's your diagnosis? What is the diagnostic test?











1. Acromegaly.
2. Glucose suppression test.

Question #39

This patient has general weakness & hyperkalemia. What's your diagnosis?

Addison’s disease

Q1: A17 YO male has fatigue, lightheadedness upon standing or while upright, muscle weakness, fever, wt loss, difficulty in standing up, anxiety for long period with hyper-pigmentation, this is his hand (inf.) compared to his brother (Sup.). What is your spot Dx.?

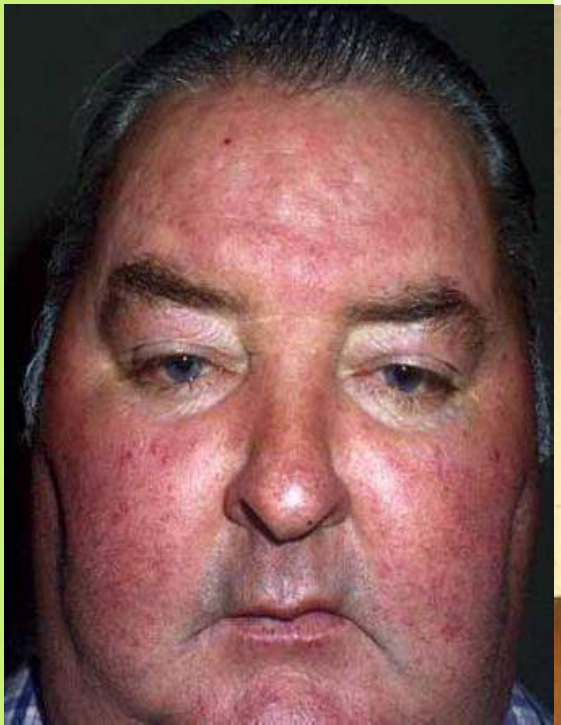
Adrenal insufficiency.

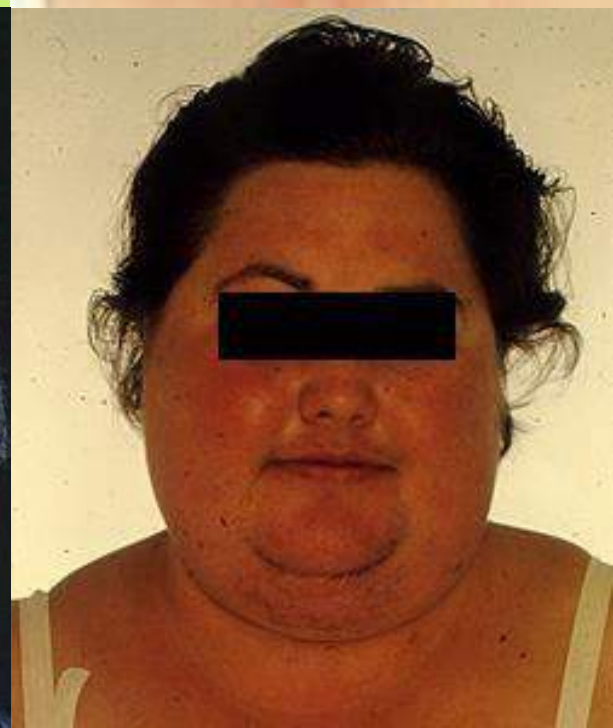
This patient presented with new onset hypertension and diabetes, puffiness in the face and increase in weight:

A. What's the best screening/confirmatory test for this case?

B. What is the diagnostic test for her condition?

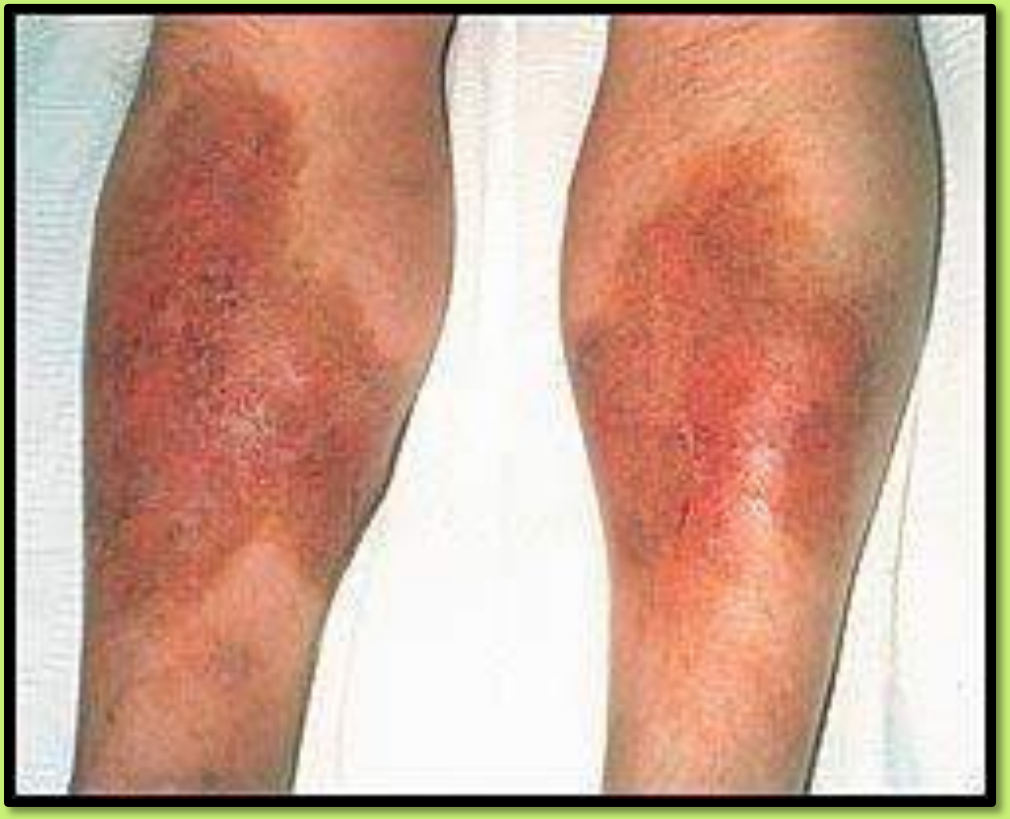
C. What is the Dx?





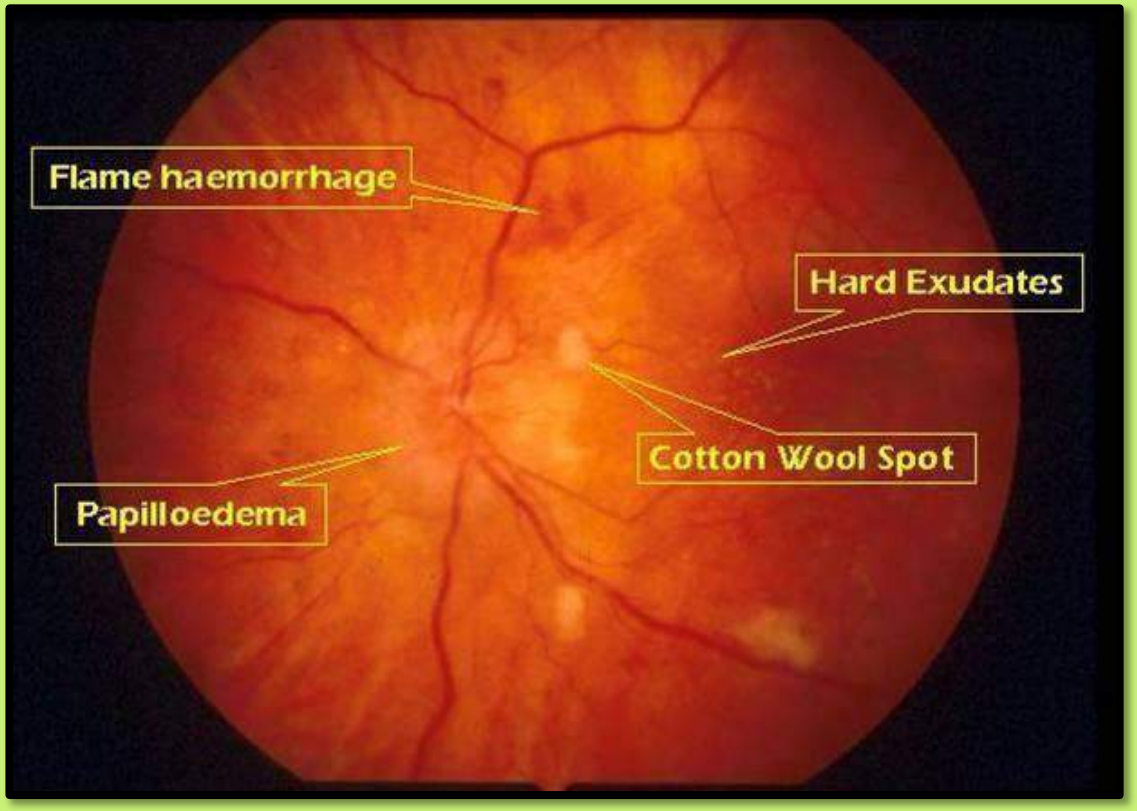
A. 24 hour urine cortisol level (elevated)
B. Overnight Dexamethasone suppression test (no response to suppression)
C. Cushing Syndrome

Q5: 60 YOPt known case of DM 30 yrs ago, presented with this asymptomatic, gradual, painless lesion. Name this lesion?



necrobiosis lipoidica.

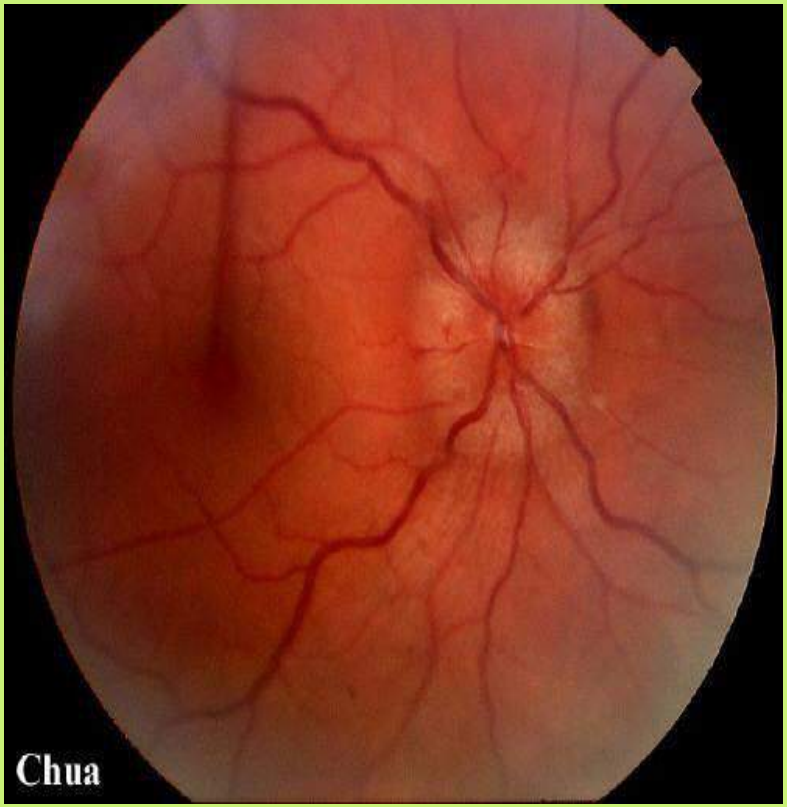
Q11: 60 YOmale pt, diabetic & hypertensive. Mention 2 pathologies seen by ophthalmoscope.



1. flame shape hemorrhage.
2. hard exudate.

Question #37

This patient has hypertension, he presented with occipital headache but no visual defects. What's this finding?



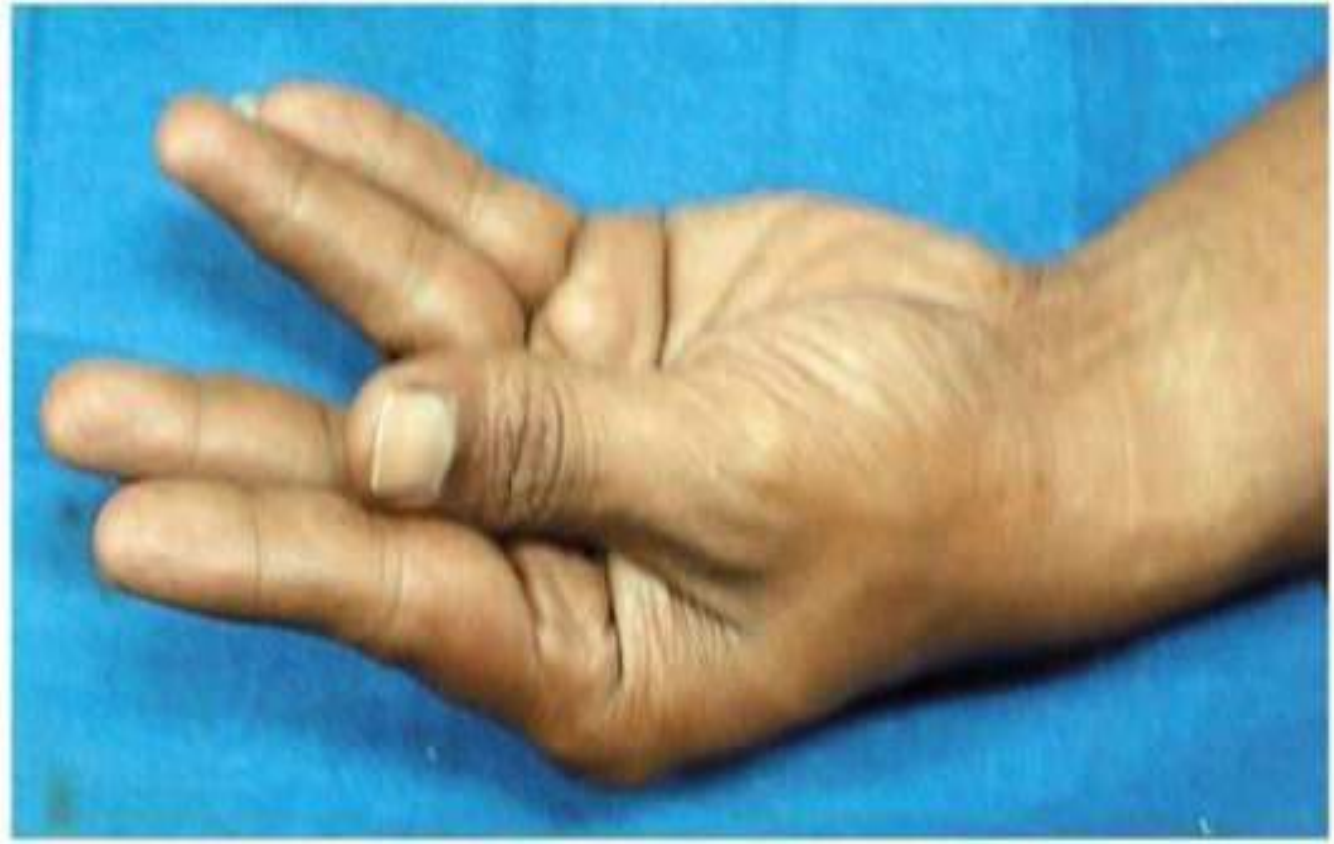
Papilloedema

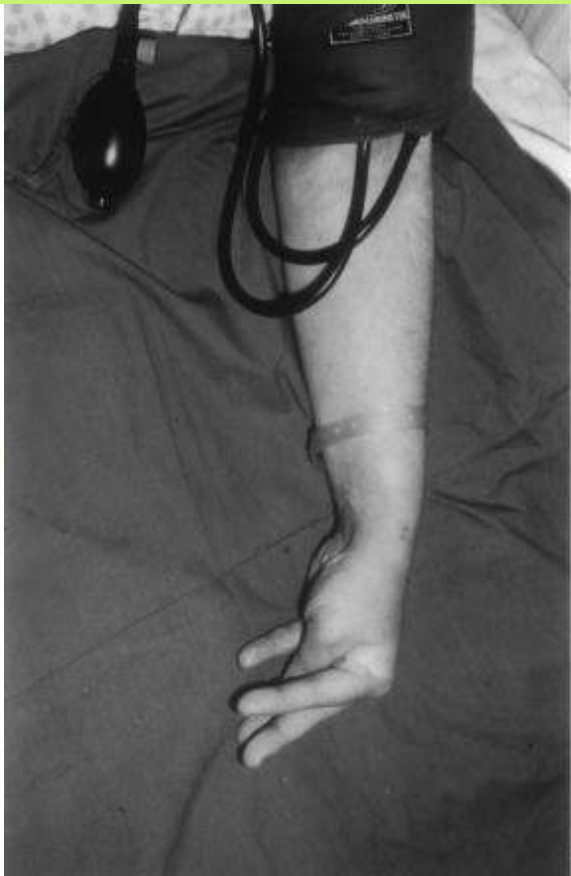
Q1: pt after total thyroidectomy presented with this condition,

A. what is the cause ?

B. Name of the sign?

C. Investigation to order?





A. Hypocalcemia (carpopedal spasm).
B. troussie sign
C. Ca+2 level

Case #1

A female patient known case of SLE and on steroids, presented complaining of high fever, nausea and vomiting, chills, dysuria, and hypotension 80/60 , her lab data are as follows:

- O_2 sat 92%
- labs: Na 135 | K 5.9 | Cl 90 | Hco3 10 | Glucose 65
- Wbc 17,000 | Urine positive for nitrites and leukoeseterase.
- Other CBC parameters were normal.

1. What is your diagnosis?
2. What is the confirmatory investigation?
3. Calculate the anion gap?
4. How do you explain the bicarbonate level?
5. What is the management?

1. Adrenal crisis / some answered sepsis or pyelonephritis (we're not sure).
2. Blood culture (if sepsis) / 24 hour urine for cortisol (if adrenal crisis)
3. AG=35
4. Low bicarbonate because of the increase in hydrogen ions that resulted from the acidosis (not sure)
5. IV fluids, IV mineralocorticoids & steroid, IV antibiotics.

Case #1

Patient with diabetes on insulin, presented with abdominal pain, vomiting, diarrhea, & poly-urea. ABG was done (the values shows metabolic acidosis wide AG):

1. What is the Dx.?
2. Mention 2 lines of management.
3. Calculate the anion gap.

-DKA.

-Correction of fluid loss with intravenous fluids

Correction of hyperglycemia with insulin.

-Na – (Cl+HCO3) .

SLE pt on steroids, presented with high fever, nausea, vomiting & hypotension(80\60). (There were many labs data, numerical values were given for ALL of them, normal ranges were given for some!)
Urea: high, creatinine: high, Na: 120, K: 5, HCO3: 10, Cl: 100, Glucose: 60, Ca: 2.3, urine analysis was positive for leukocyte esterase and nitrites,...that is what I remember)
1)What is the cause of hypotension?
2)What is the underlying acid-base abnormality?
3)What is the cause of hyponatremia?
4)Mention first two steps in management.

1) Adrenal Crisis.

2) Metabolic Acidosis.

3) Low cortisol and aldosterone level.

4) 1. IV fluid.

   2. IV Cortisone + Mineralocorticoids.

Case #2

34 YO female pt come to you with fatigue, hair loss, her blood pressure 130/80, HR 12.

1 What is the Spot Dx?
2 What is most diagnostic lab investigation ?
3- What is The Treatment ?

1 Hypothyroidism.

2 Thyroid function test .

3 Give thyroxine & triiodothyronine.

Case #2

37 YO female presented with thyroid enlargement, the thyroid was firm, non-nodular & double-sized.
She is suffering from increase in weight, cold intolerance, thin dry skin & hair loss as well as menstrual irregularities.

1 What is your Dx?
2 Give 2 causes of such condition.
3 What drug would you prescribe to this pt?

1. Hypothyroidism
2. Iodine deficiency,
Hashimoto's thyroiditis .
3. Thyroxin.

Case #1

A 23 YO woman, presented to ER presenting with diarrhea, excessive sweating, & tremor. on examination RR: 32, BP 130\90, HR: 120.

1. What is the diagnosis? "2 points"
2. What is the test should be done?
3. Give 2 modalities of treatment in such a case?

Q1. Thyrotoxicosis.

Q2. Thyroid function test.

Q3. Radioactive iodine, Thyroidectomy

Case #2

Female pt presented with tremors, loss of wt & irregular irregular pulse.

- **Dx?**
- **Most common rhythm you see in this case?**
- **Invistigations ?**

- thyrotoxicosis .
- atrial fibrillation .
- thyroid function test .

Case #1

A 54 YO male pt complaining of severe abdominal pain, nausea, vomiting. He is a known case of DM. 3 days before he came he had URTI. On P/E; there is tenderness in the epigastric area: RR: 33. investigations: Blood Sugar: 620 mg/dl, PH: 7.2, $PaCO_2$: 22, HCO_3: 11.

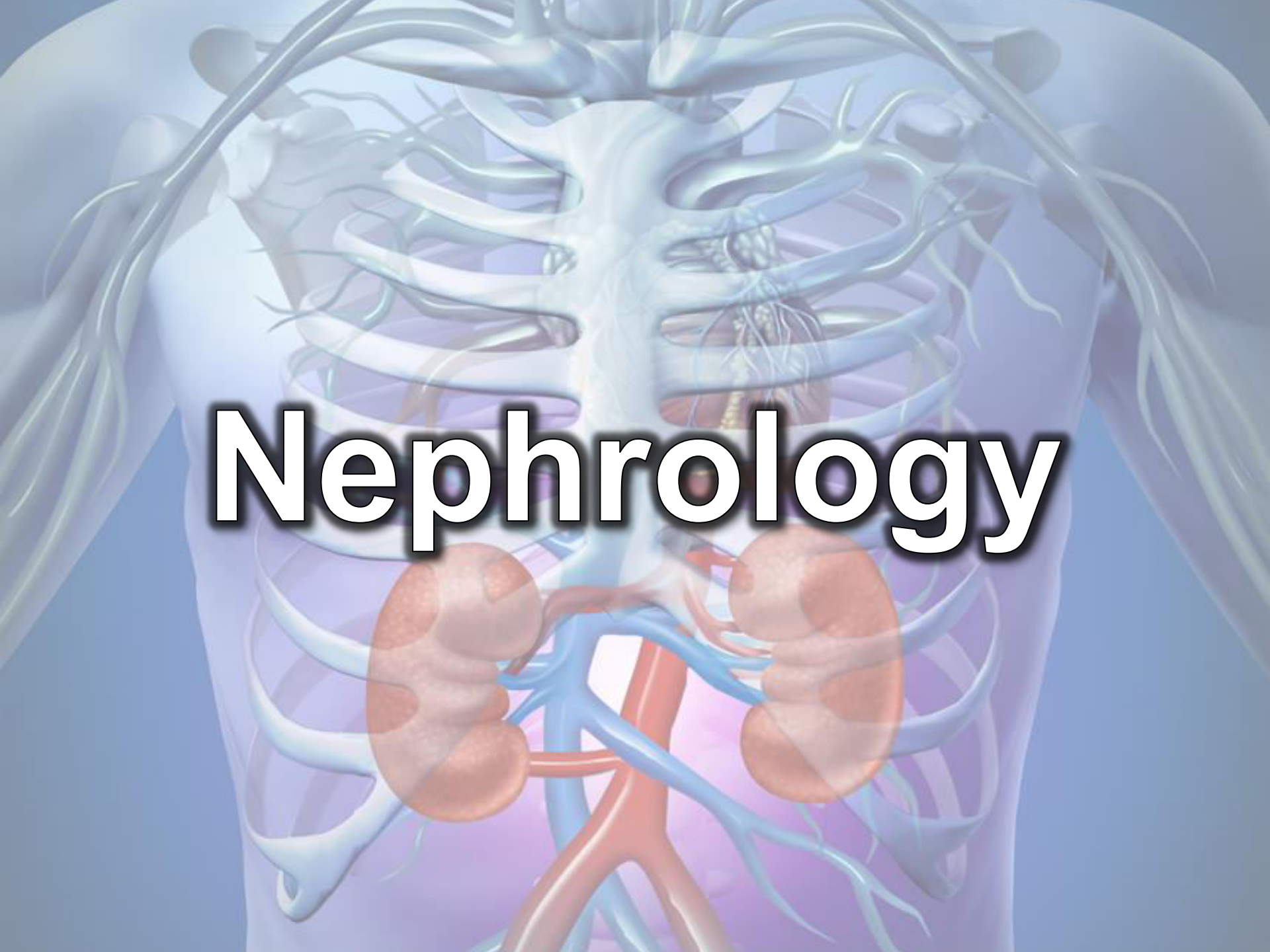
1)What is your diagnosis?
2)What type of acid-base disorder is this ?
3)what are the most common causes of this condition? What is it in this case?
4)Give 2 lines of treatment in such cases.

1) DKA.

2) Metabolic acidosis.

3) Infection, stress.

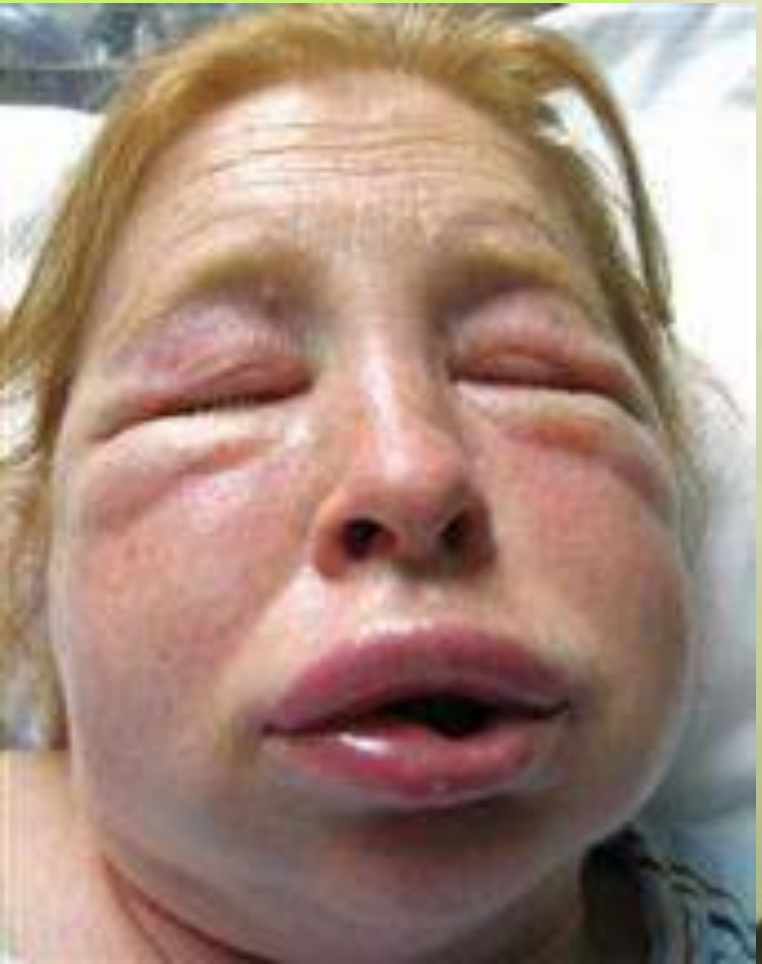
4) - IV fluid -IV glucose - IV insulin.

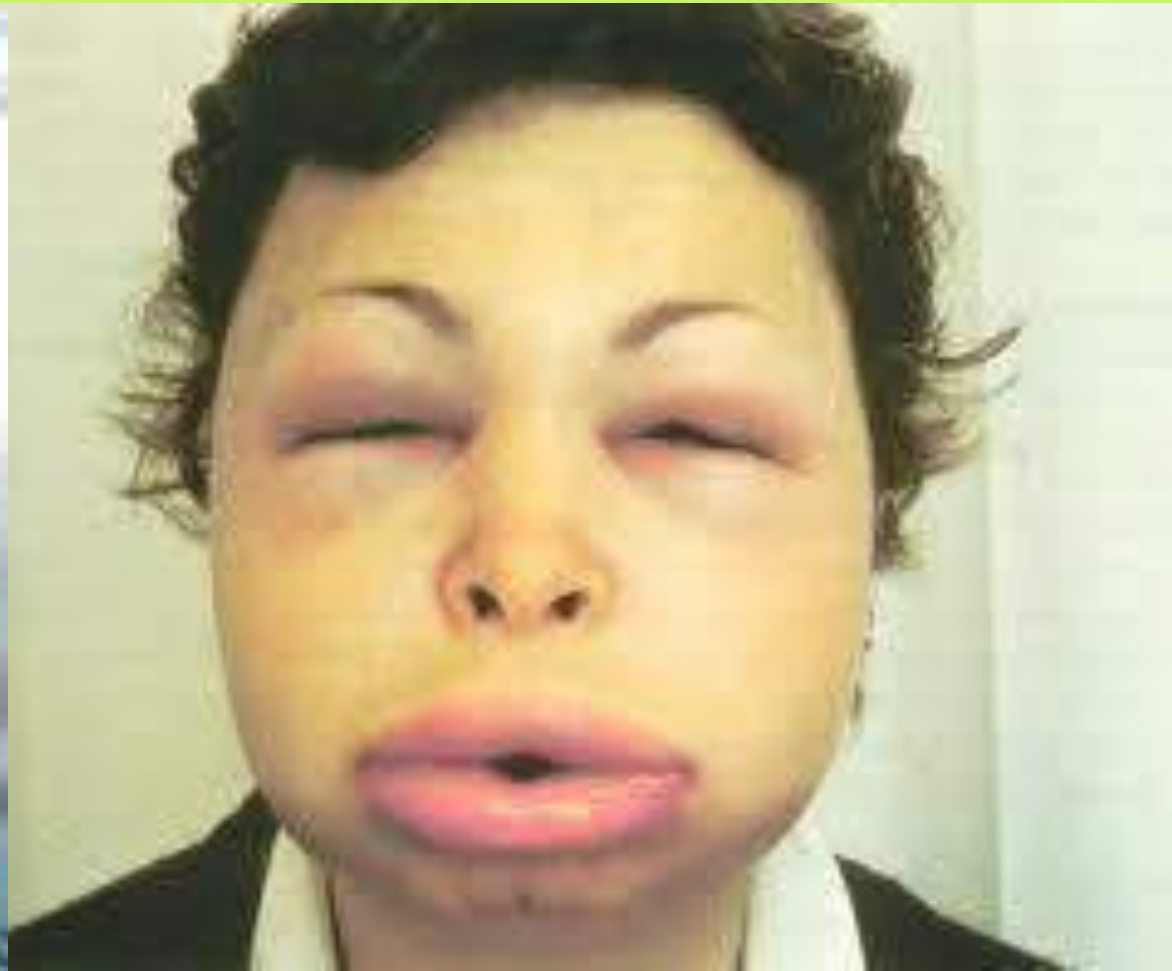

Nephrology

Q12: This patient with hypertension came with this picture.

A-What is the diagnosis?

B-What is the possible cause?





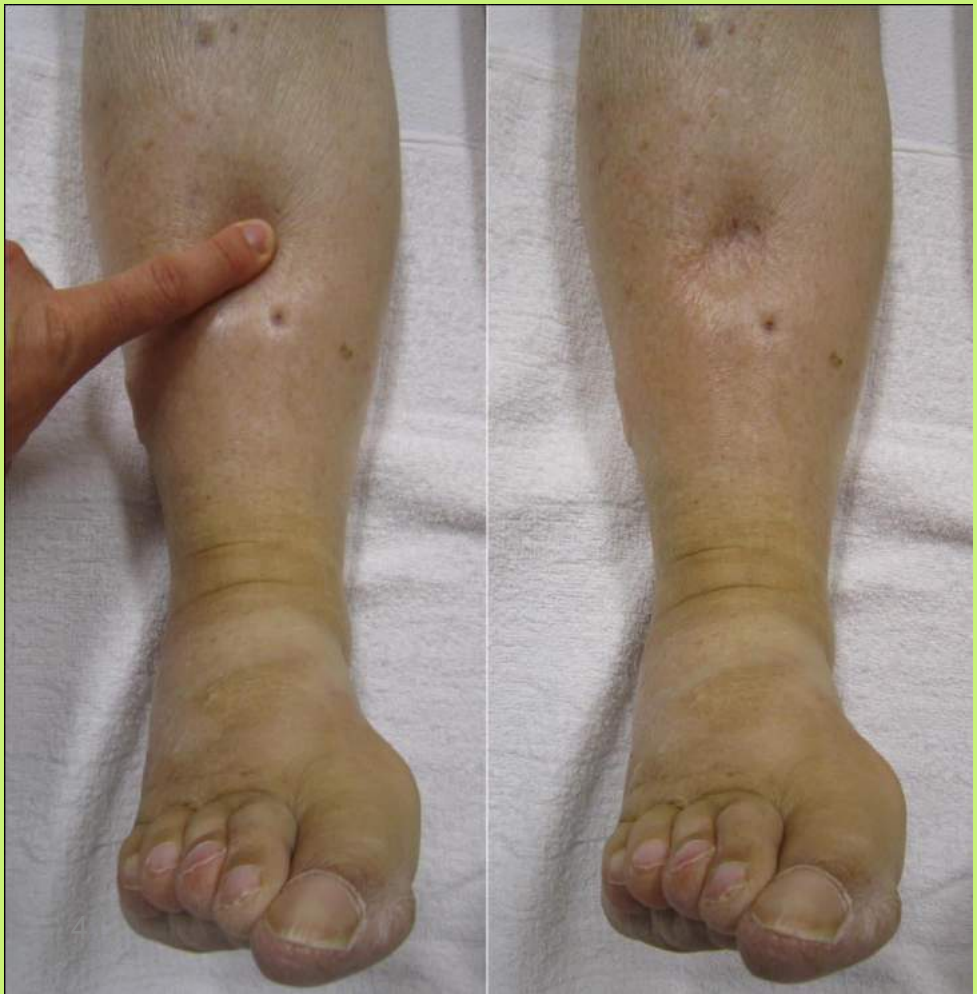
A. Angioedema

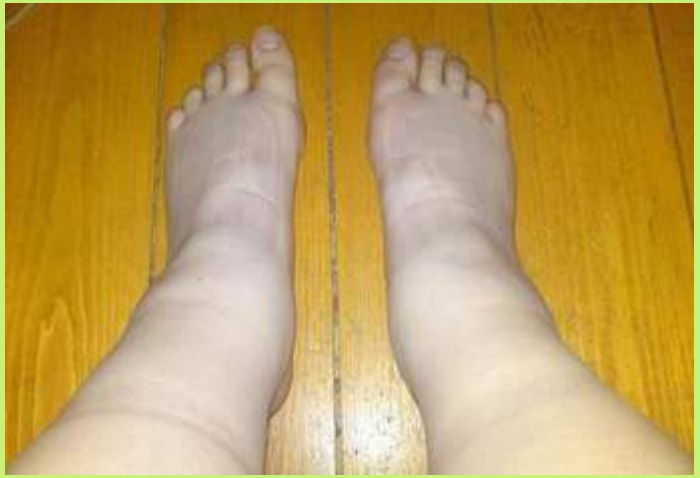
B. ACE inhibitor

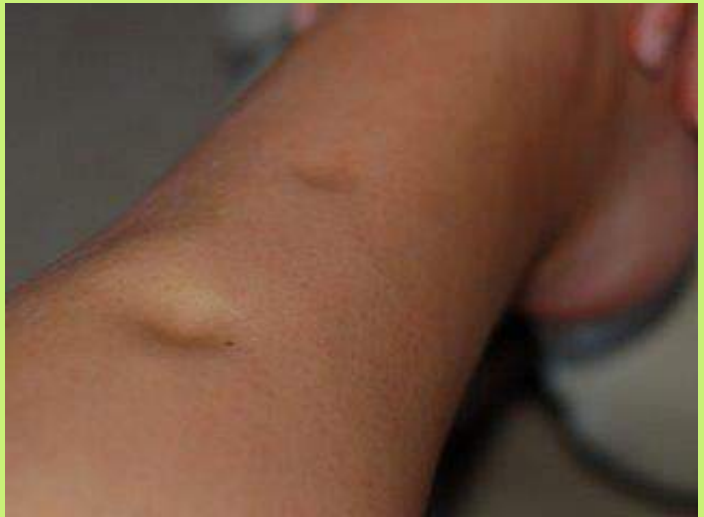
Q20: A 50-year old diabetic patient developed the following and frothy urine

A-What is your diagnosis?

B-What is the first lab investigation to be done?



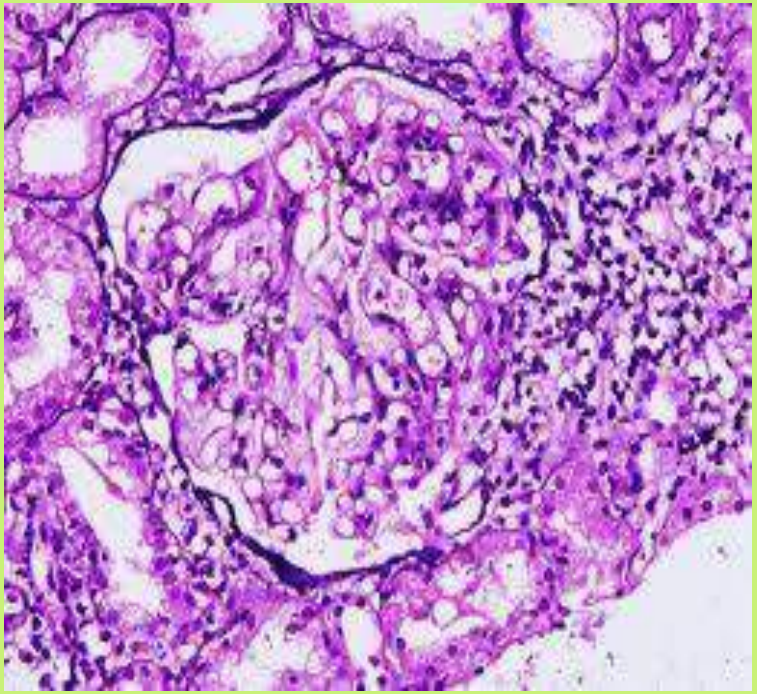




A. DMnephropathy
B. 24-hour urine collectionfor protein, Urine Analysis for proteinuria

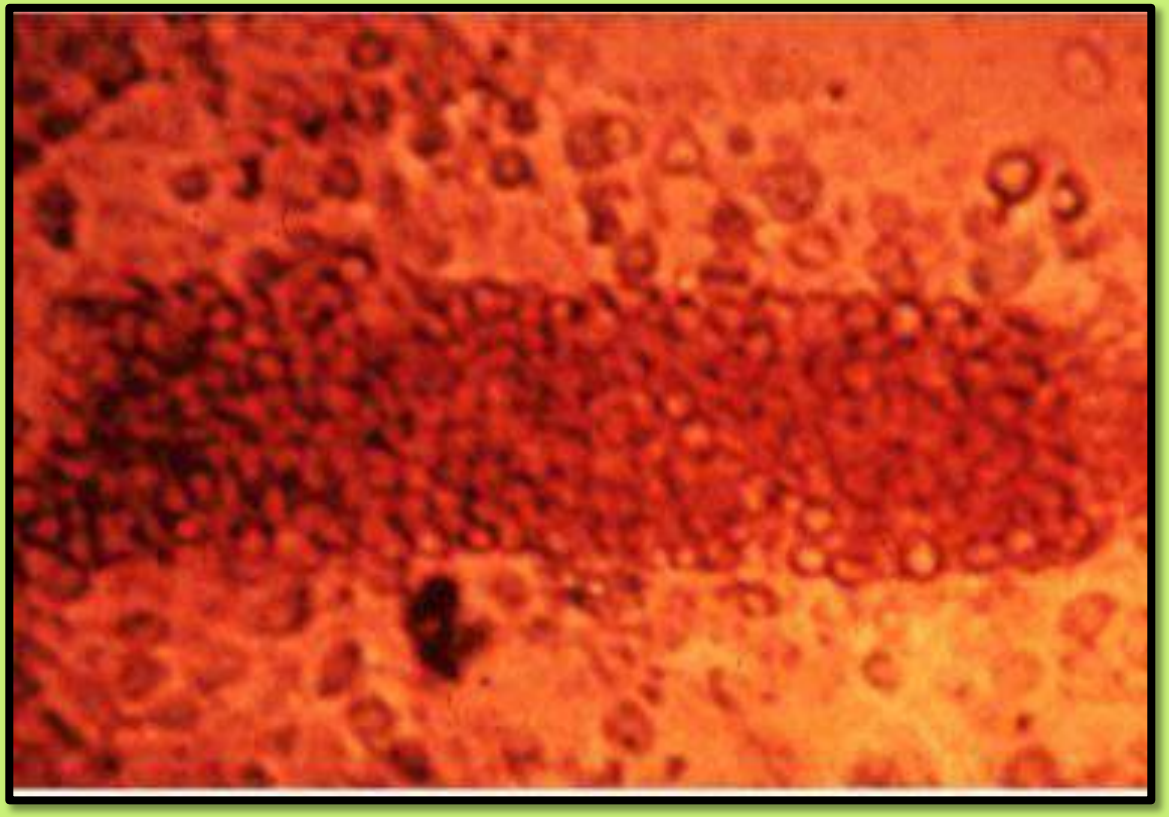
Question #35

1. This biopsy is taken from which organ?
2. Mention 1 indication.



1. Kidney.
2. Neohrotic syndrome (extereme ages, resistant to steroids .. Etc)/ Nephritic syndrome ….etc

Q12: A pt presented with red urine. The picture shows a microscopical view of his urine sample. Mention 2 causes for this condition.



This is an RBC cast seen in nephritic syndrome.

Causes are :

1-IgA Nephropathy.

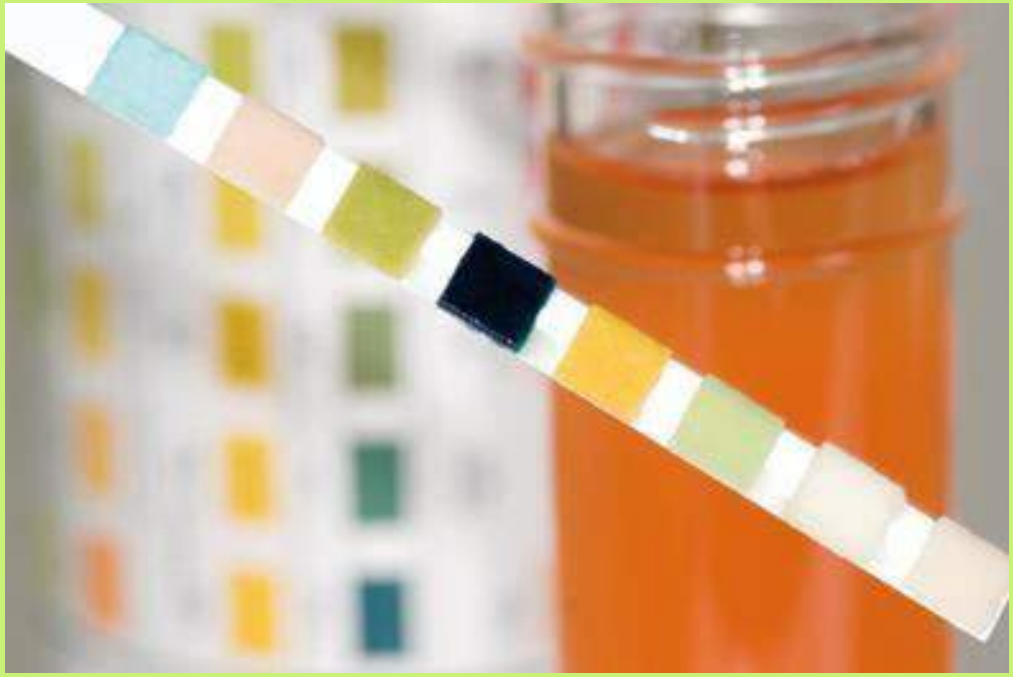
2- SLE.

3- Cryoglobulinemia.

4- Post-Strep infection.

Q10: A man is suffering from haematuria after 2 days of having Streptococcal infection in his throat.

What's your Dx?



IgA glomerulonephritis.

Question #40

1. What's this procedure?
2. Mention 1 indication.

1. Hemodialysis.
2. Renal failure (ESRD)….etc

Case #1

21 YO presented with SOB, fatigue, dark-colored urine, Hx of "cold" 10 days ago. On P/E: BP 140/90, puffy eyes, mild pitting lower limb edema, lung crepitations.

1 What's your Dx.?
2 Give 2 findings in urine analysis?
3 What's the most likely agent causing this ?

1- Nephritic syndrome (Post-streptococcal GN).
2- Dysmorphic RBCs, RBC casts.
3- Group A Beta-Hemolytic strep
(Streptococcus pyogenes).

Case #1

34 YO male presented with bilateral lower limb edema, puffiness of face, peri-orbital edema. 24-hour urine collection sample showed 5.4g proteins.

1What other 2 findings you suspect to have in the serum of this patient ?

2write 2 causes that would lead to his condition.

3what is the diagnostic test that will give you the etiology & guide your treatment ?

1- Hypoalbumenia/Hyperlipidemia.

2- Amyloid , Diabetic nephropathy

3- Kidney biopsy

Case #1

A female pt visited your clinic complaining of bilateral leg swelling & peri-orbital edema. She is a known case of DM which was controlled until 3 months ago. She developed HTN 3 months ago, but was not controlled even with 2 drugs. On examination she has mild respiratory distress & large edema in her legs.

A- What is your most likely Dx?

B- Mention 2 confirmatory tests.

C- Mention 2 lines of management for this pt.

1. Nephrotic Syndrome.

2.24h urine collection for albumin (> 3.5 gm) - Serum albumin (dec.) – Serum lipids profile(inc.).

3.Steroids -Prophylactic Anticoagulants. –Diuresis

Case #1

67 YO woman presents with SOB on exertion & bilateral ankle edema that she noticed just today. UA/ 24 hour urine 3+ Protein, low Albumin-3.4 g/dL (3.5-5g/dL).

Q1: What is the most likely diagnosis?

Q2: mention 2 common secondary causes of Dx?

Q3: mention 2 complications related to the Dx?

1 : Nephrotic syndrome.
2: DM, SLE, lymphoma.
3: Increased chances of infection, Hypercoagulability.

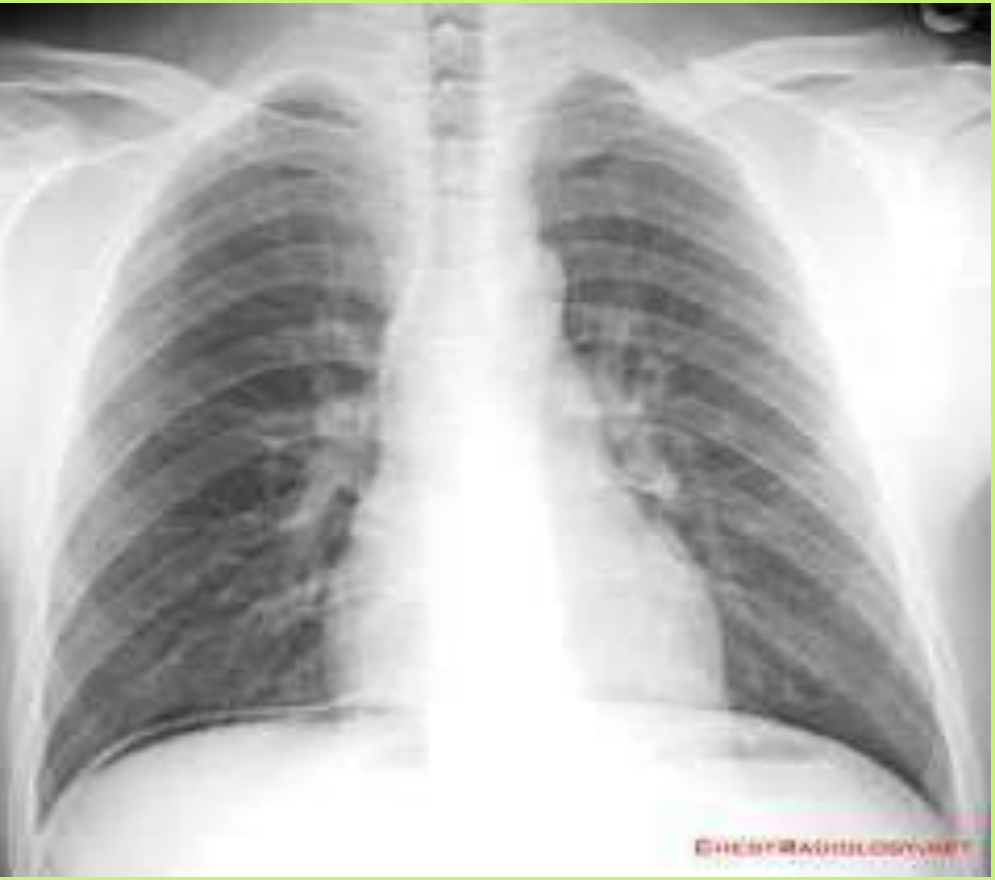
Case 2: A 25-year old man is undergoing a physical examination to become a firefighter. He must carry a 200-pound bag up a flight of stairs, followed by push-ups and a walk across a balance beam. He becomes very week afterward and is brought to the emergency department with painful muscles and dark urine.

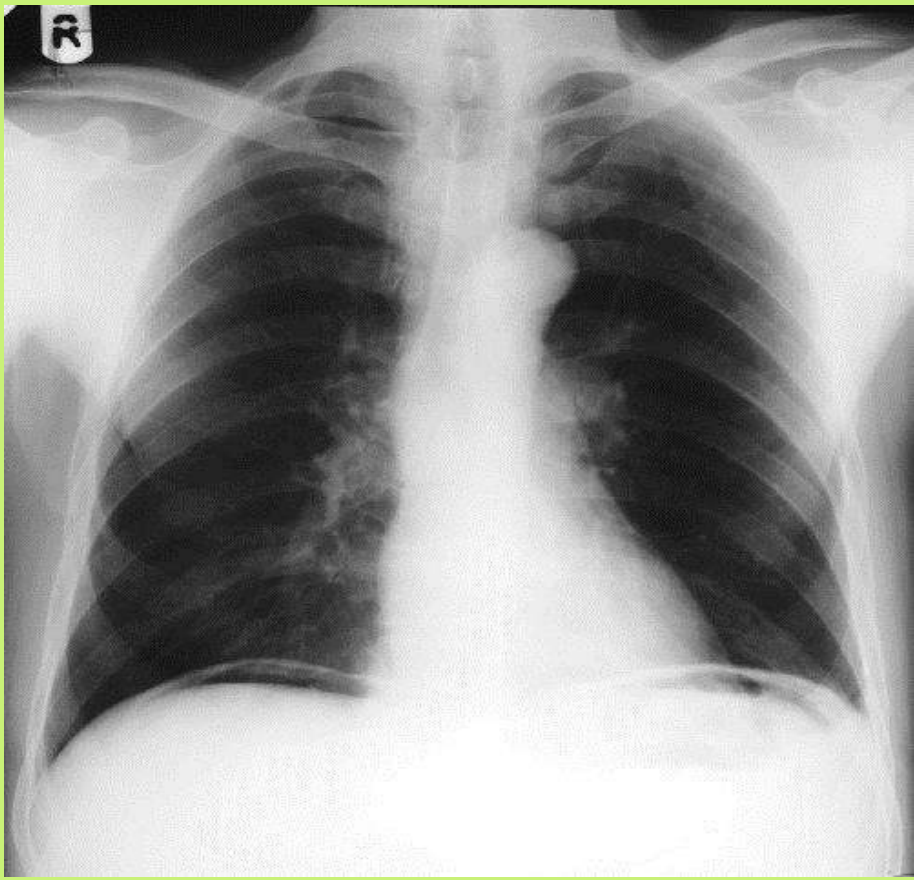
1. What is the cause of his urine color?
2. What is the diagnosis?
3. Do you predict having RBCs in urinalysis?
4. What is the cause for low serum Calcium level?
5. What is the first line of management ?

1. Myoglobinuria .
2. Rhabdomyolysis
3. No .
4. Hyperphosphatemia & Deposition of CA+2 in the injured muscles .
5. Hydration .


Gastrointestinal

Q14: 23 year old male patient came with severe abdominal pain, what is your diagnosis?

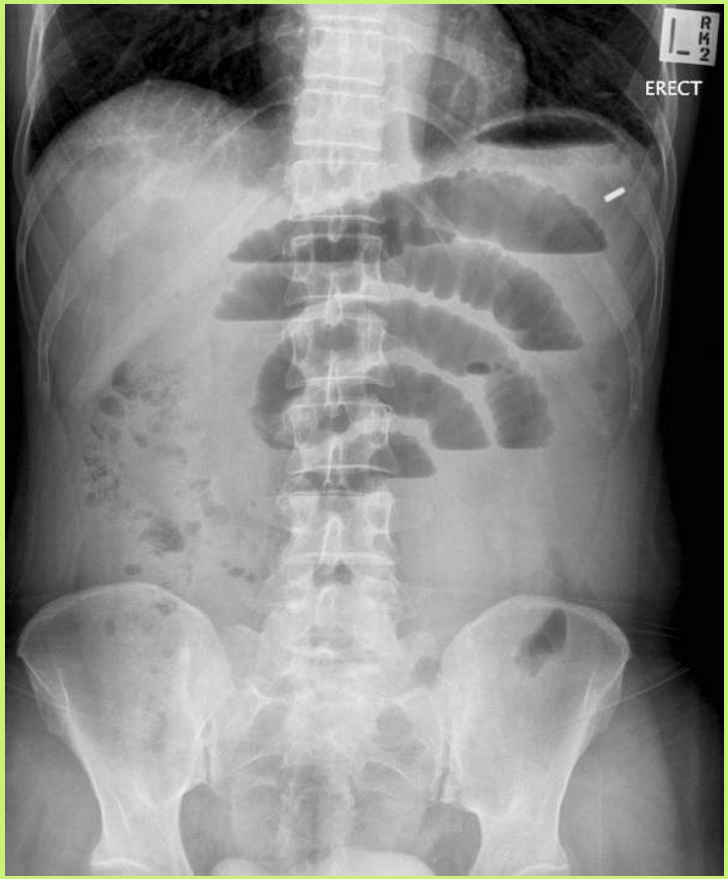




1. Air Under The Diaphragm .
2. Perforated Viscous.

Question #11

What's your diagnosis?

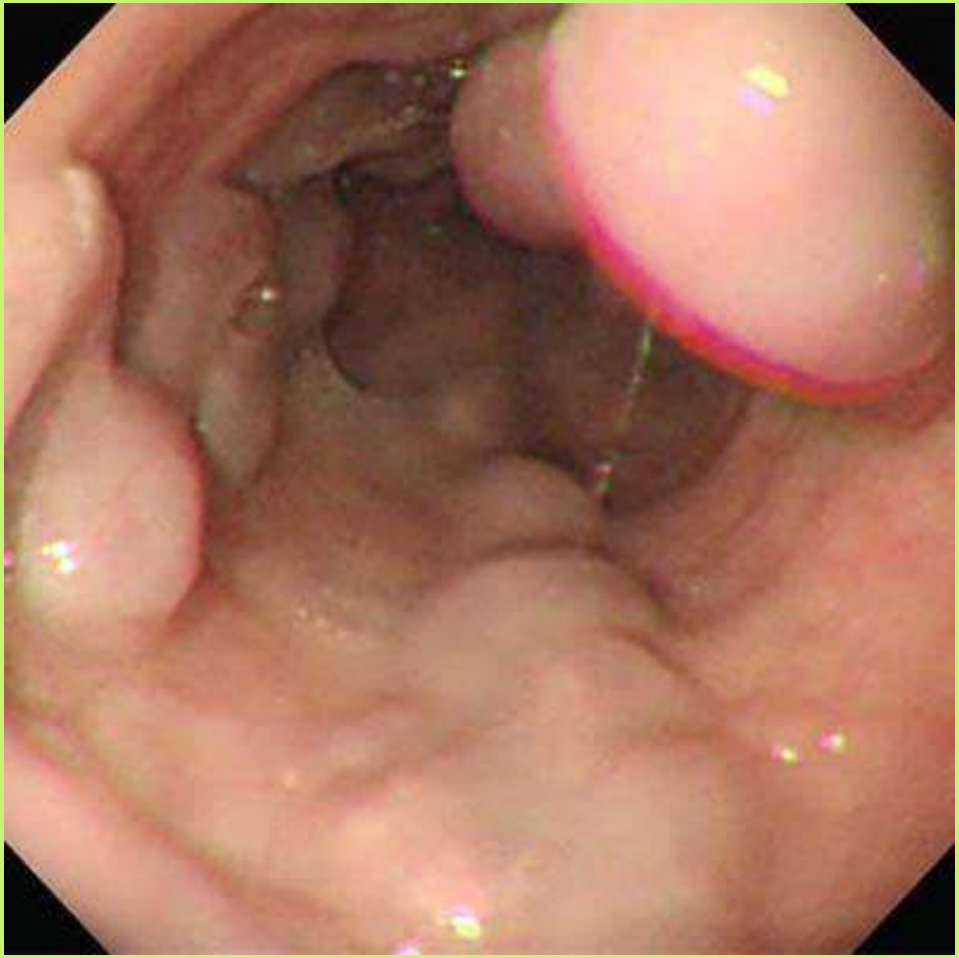


Intestinal Obstruction

Q15: An endoscopy was done for a patient with liver cirrhosis and showed the following.

A-What is the diagnosis?

B-Mention a line of management.

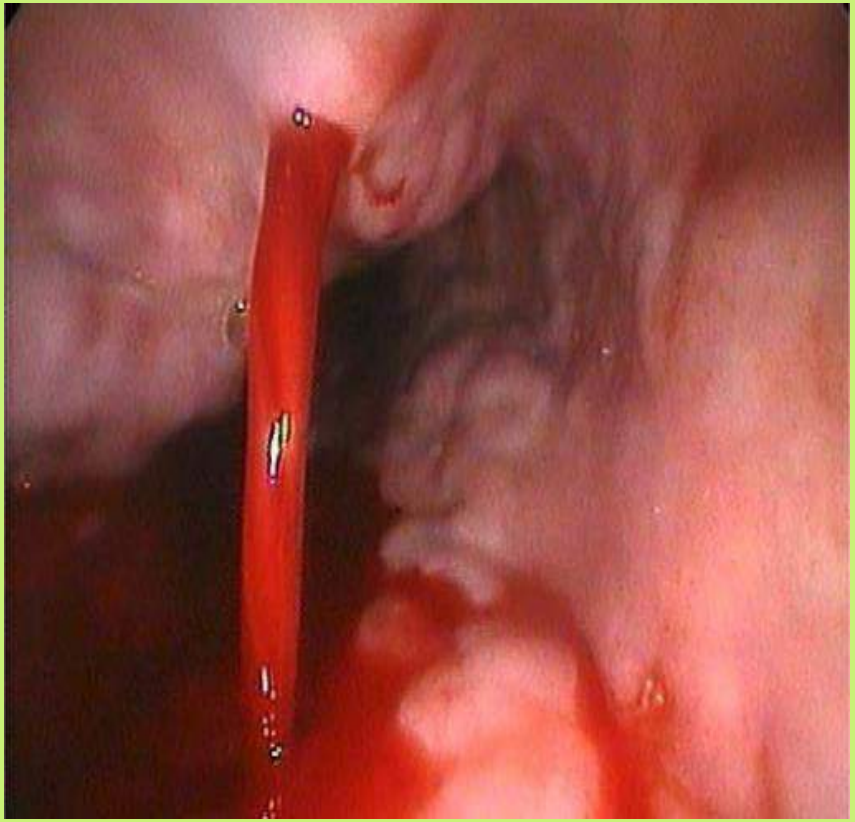


A. Esophageal varices

B. Esophageal band ligation

Question #38

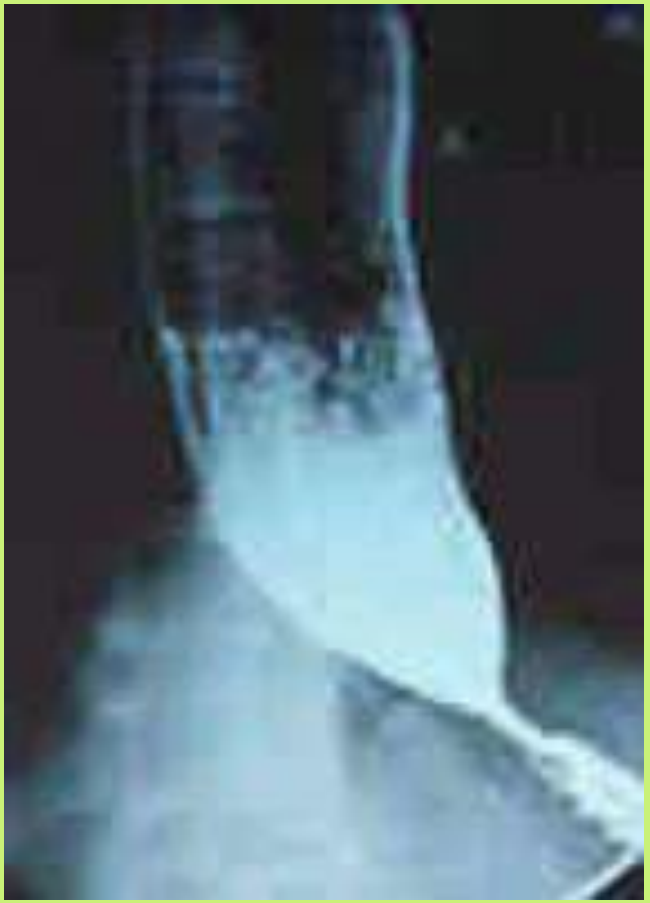
This patient presented with massive hematemesis. This is the picture of his endoscopy. What's your diagnosis?



Esophageal varices

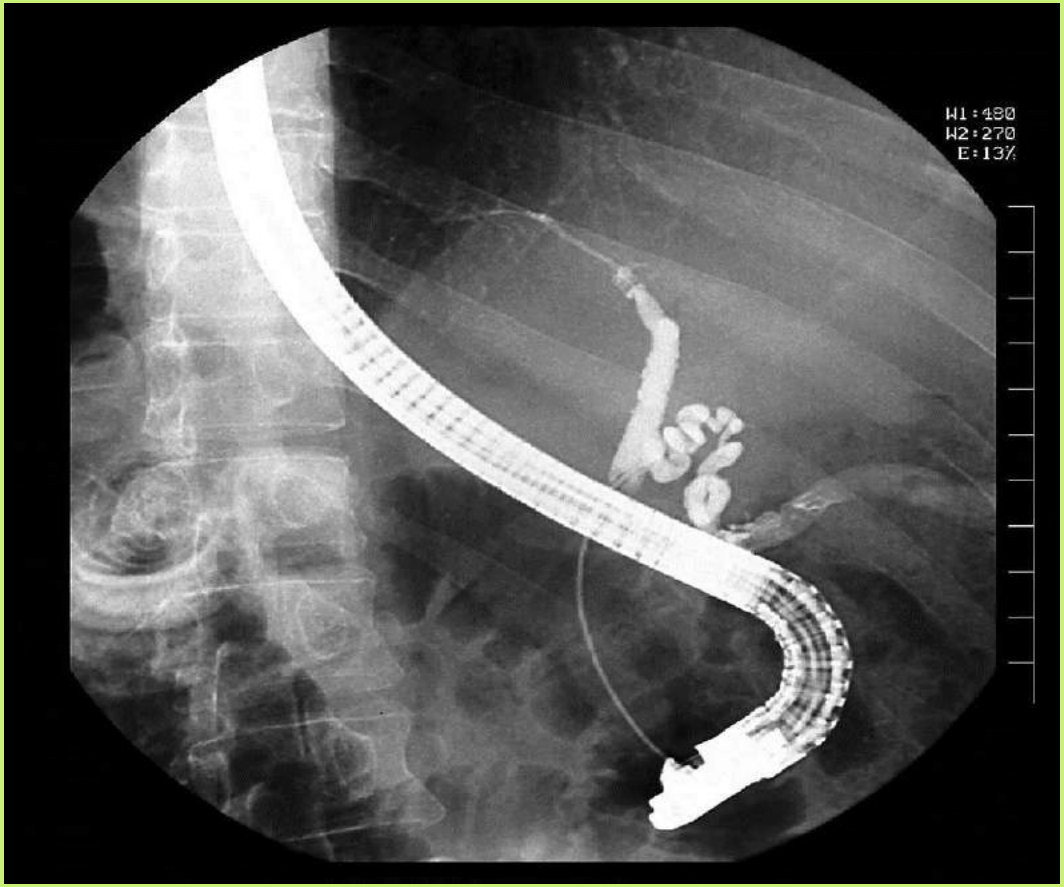
Question #22

This patient presented with intermittent dysphagia.What ’s your diagnosis?



Achalasia

A. What's this procedure?
B. Mention one complication for this procedure.

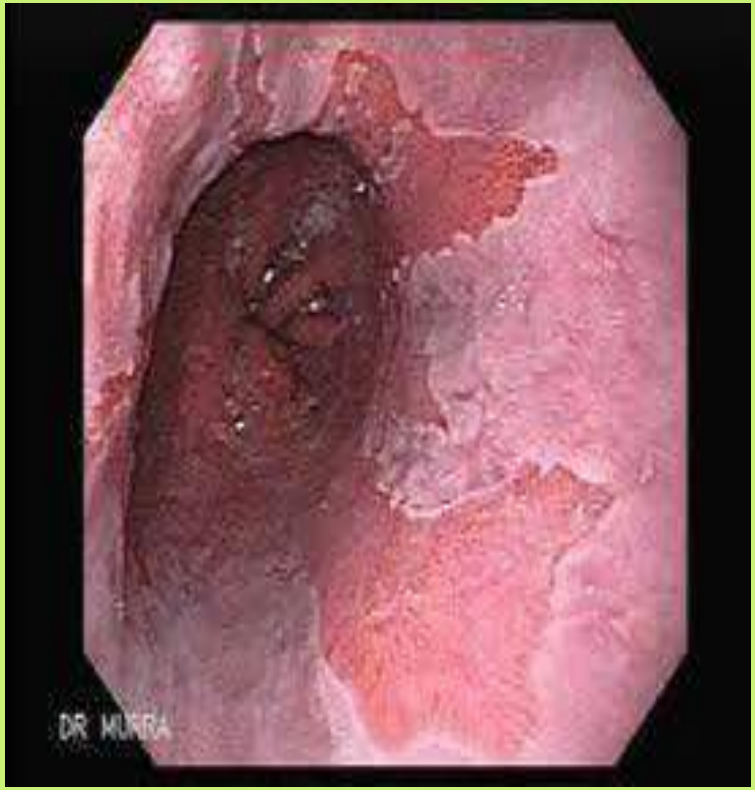


A. ERCP.

B. Pancreatitis, Cholangitis, Perforation

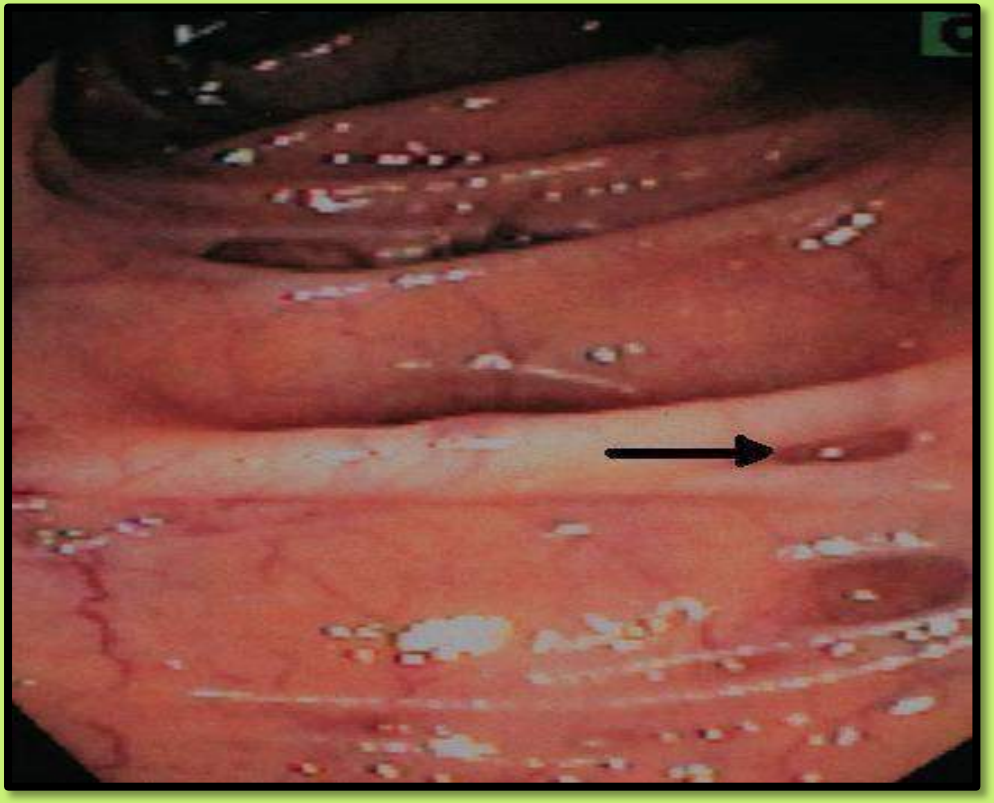
Question #24

This patient had GERD for 10 years, what's your diagnosis?



Barrett's esophagus

Q3: A 79 YO, is admitted to the hospital with CC: intermittent rectal bleeding for 3 days. What is the diagnosis? & mention one complication of the diagnosis.



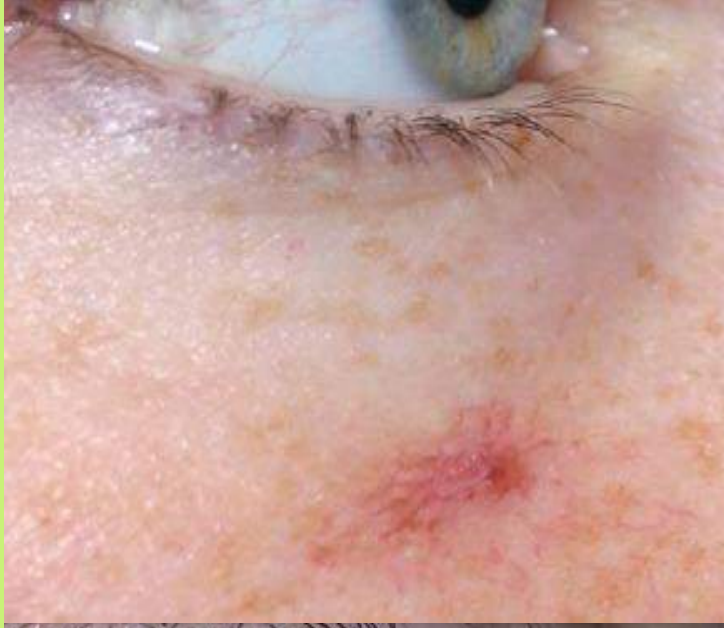
1)diverticulosis
2)Bleeding, infection (diverticulitis), perforation.

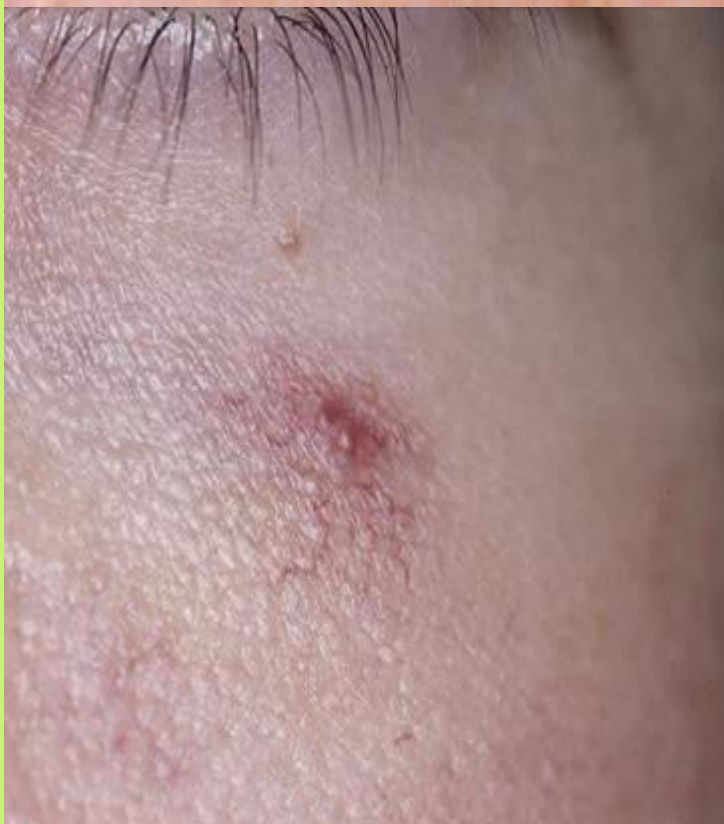
Patient presented with agitation & confusion, now he comes complaining of Hematemesis

A. What is the name of this lesion?

B. Mention the endoscopic finding for this patient?

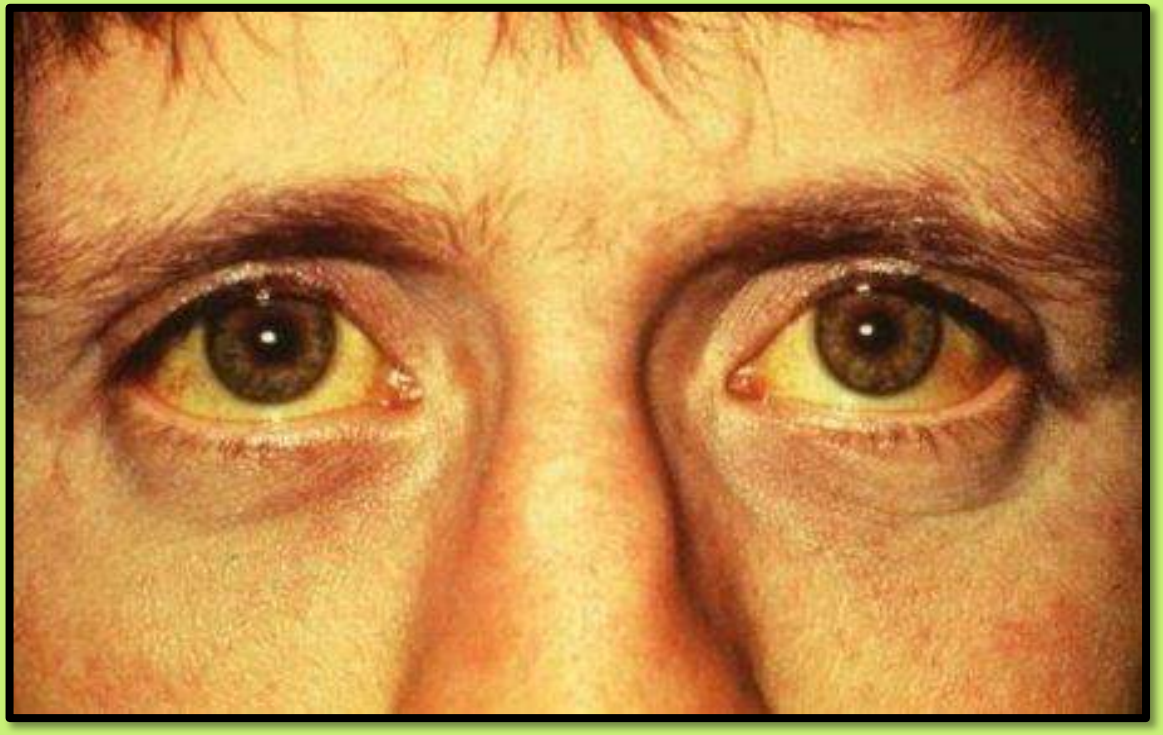
C. What is the cause of the confusion?





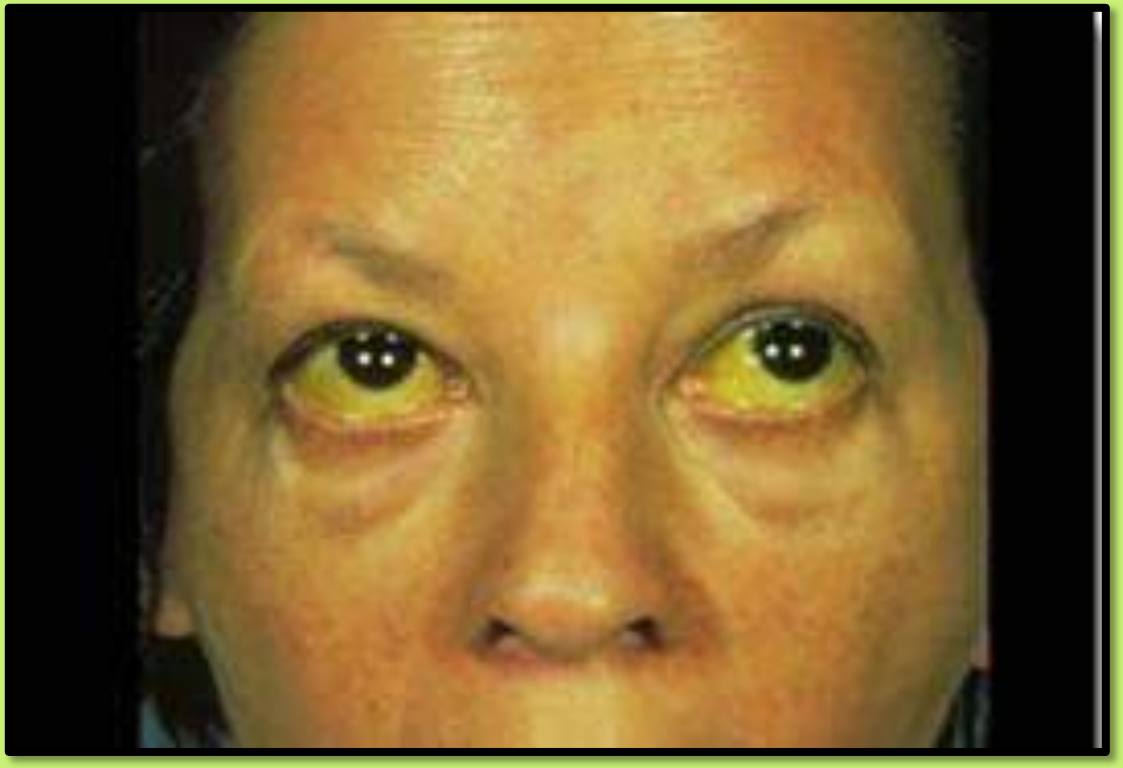
A. Spider nevi/ Spider Angioma.
B. Esophageal varices
C. Hepatic Encephalopathy

Q10: This pt presented with RUQ pain, diarrhea, anorexia, & nausea. His sister has similar condition.



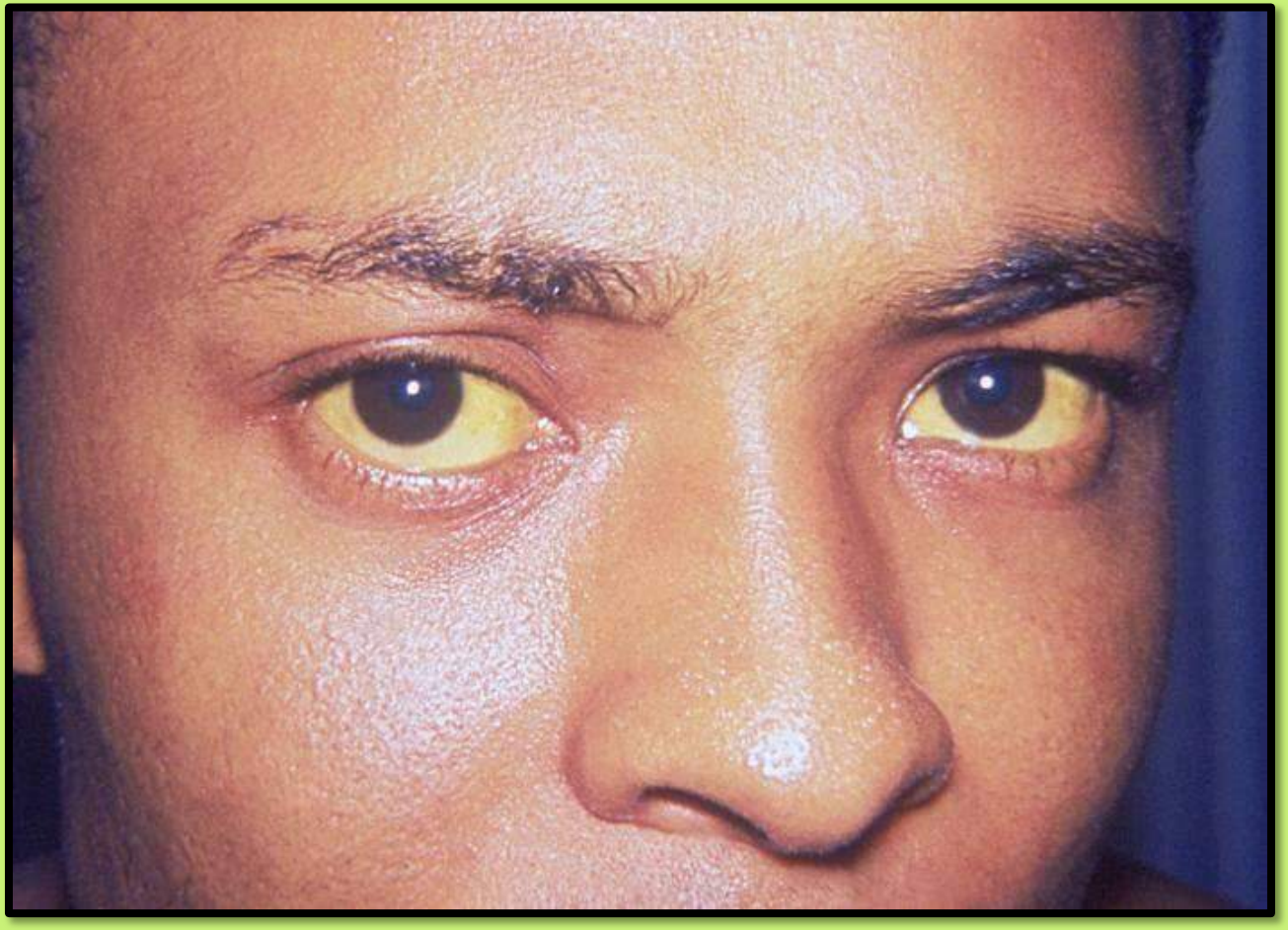
Acute Hepatitis A.

Q8: This patient came with intermittent abdominal pain of 1 weeks duration, what is the best initial diagnostic test to order for him?



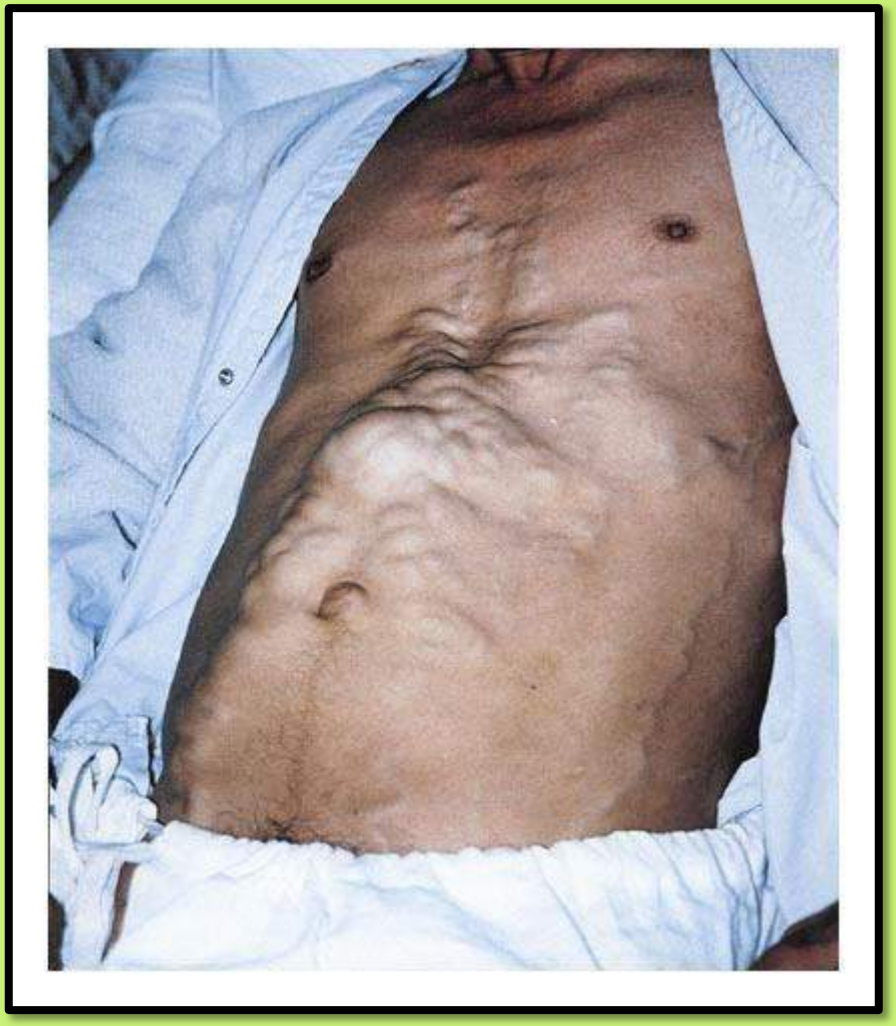
Don’t know exactly! The answer could be LFT .. Ultrasound .. IgM for hepatitis A.

Q11: Apt presented with fever, abdominal pain, dark urine & nausea. Three of his classmates had similar condition. What is your Dx?



Acute Hepatitis A.

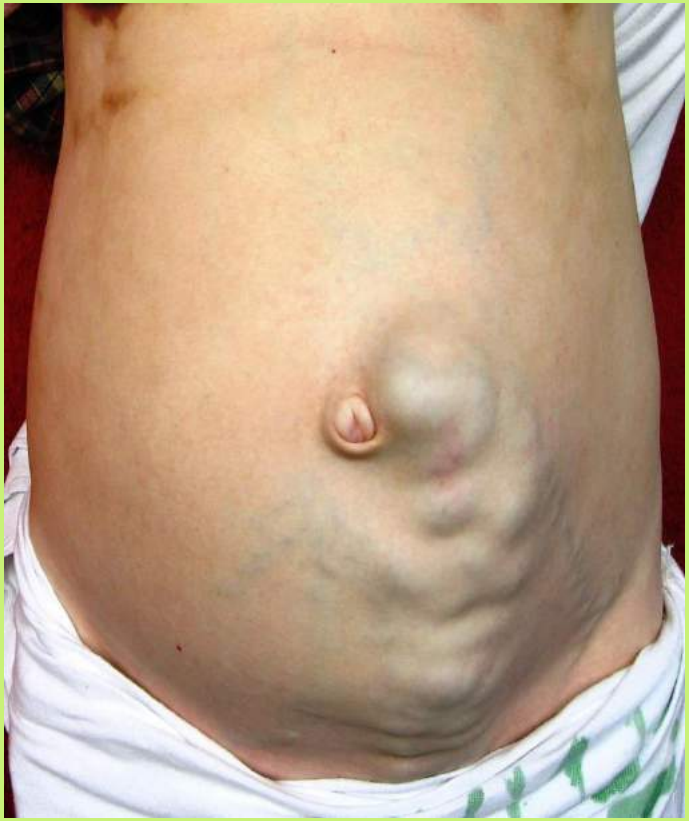
Q2: 1. Give the cause of this condition? 2. name this pathology?



Portal hypertension, caput medusa.

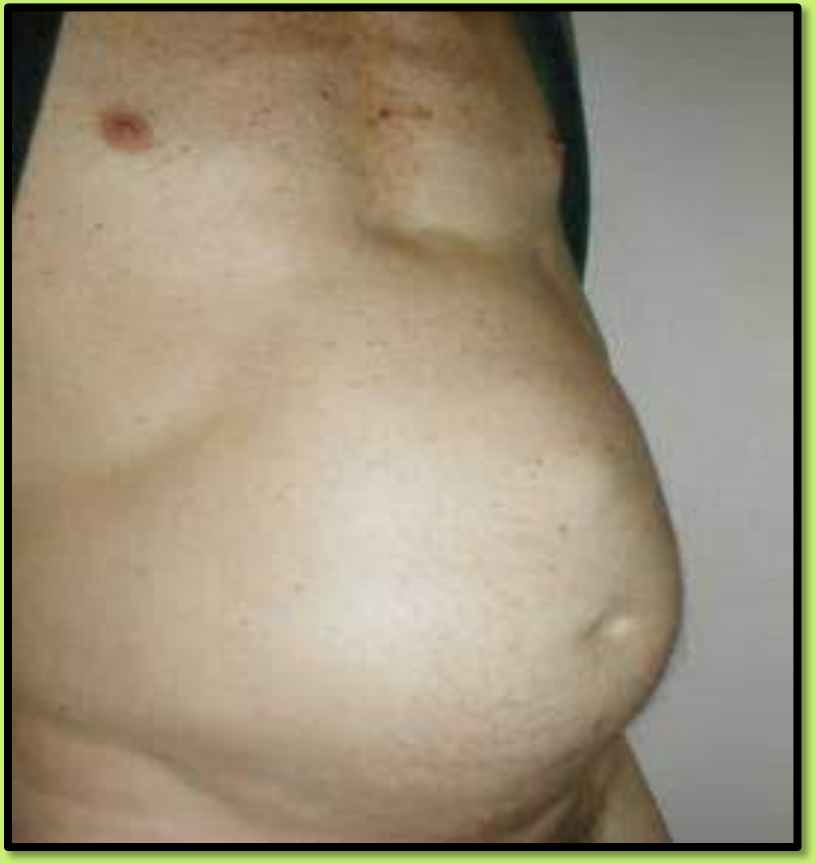
Q11: Pt with cirrhosis .

- **What the most imp. Organomegaly you look for in examination ?**
- **What is the technique you do if you can't feel it?**



- Splenomegly .
- abdominal ultrasound(my answer)/some answered it: tapping on the lower left ribs .

Q2: Pt with liver cirrhosis & ascites , presented with fever & abdominal pain , P/E shows rigid abdomen, what is the most likely Dx? How to confirm?

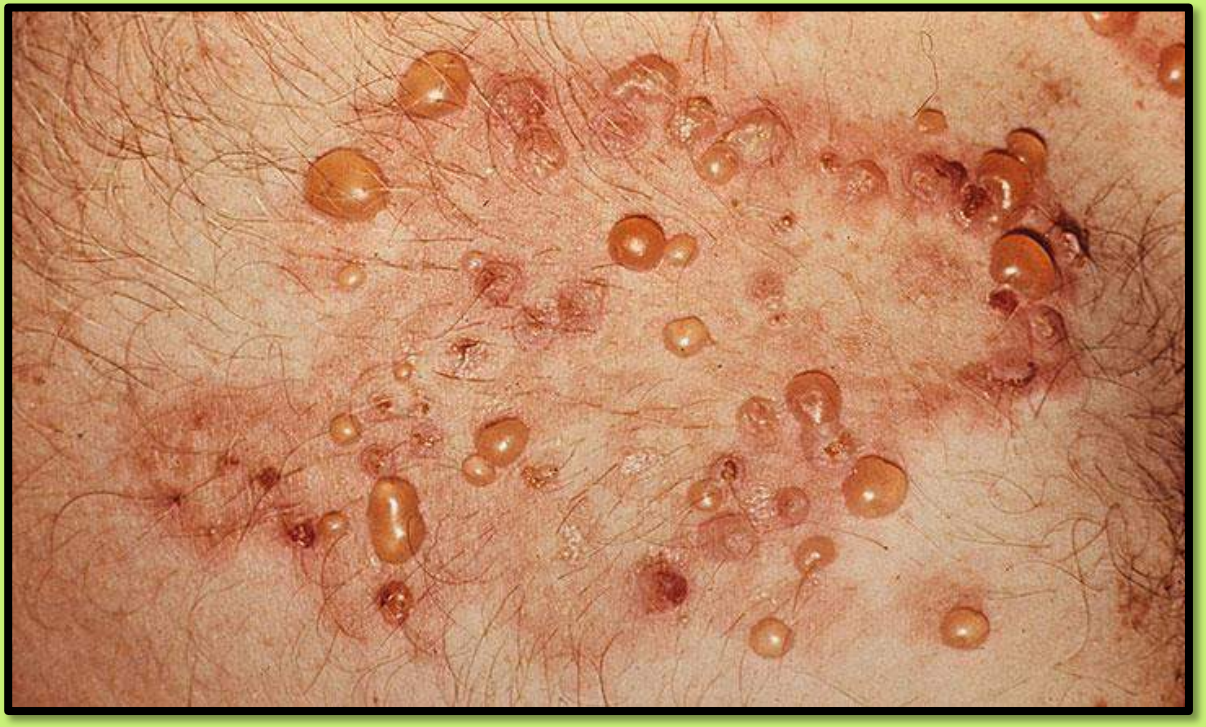


- Spontaneous bacterial peritonitis .
- peritoneal fluid analysis & cultur.

Q2: Over a period of 6 weeks, the 18 YO pt began to develop abdominal bloating, pain, & Diarrhea. in CBC: she was anemic.

1) what is the pathology seen in the picture?

2) what is the most likely Dx?

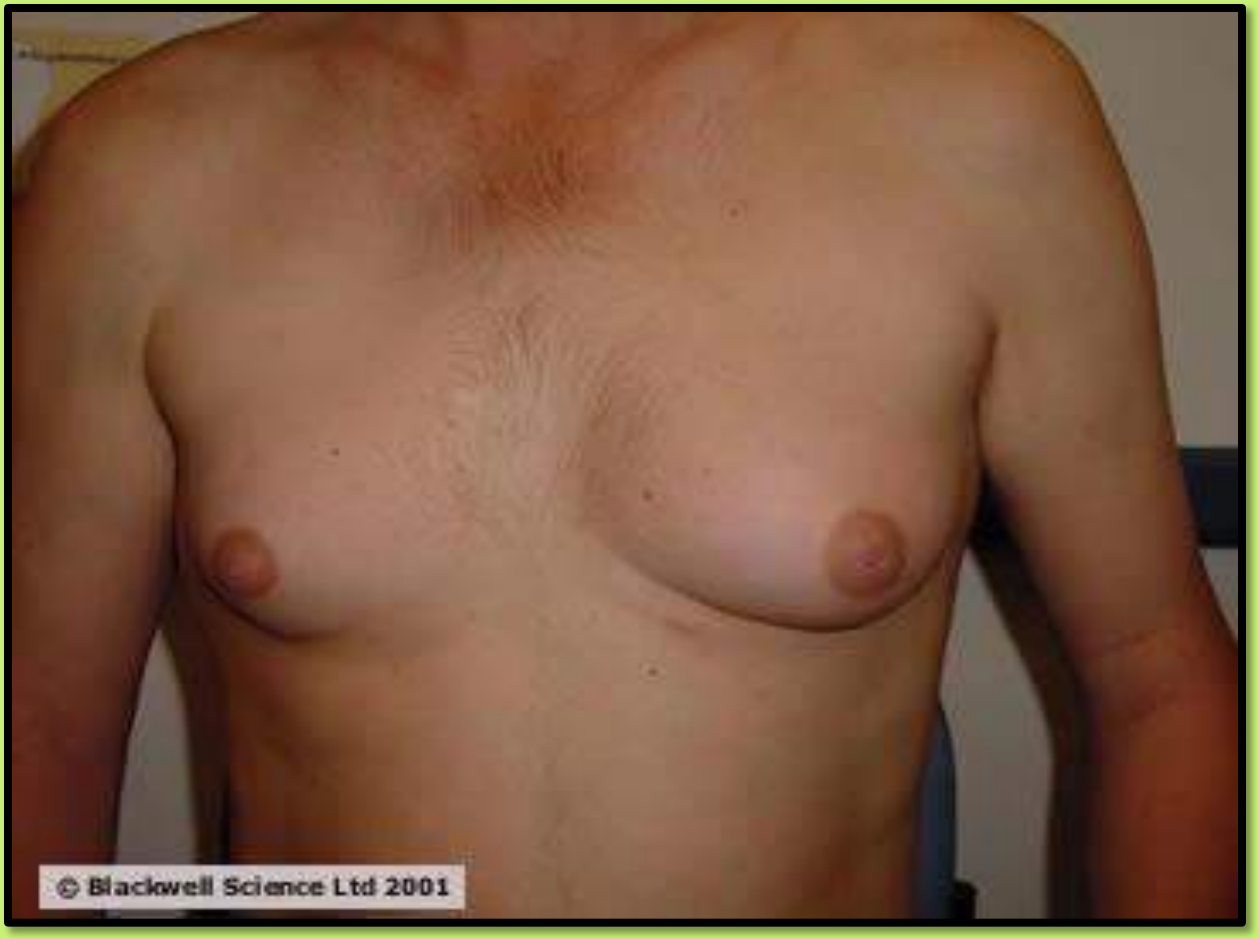


1) dermatitis herpetiformis.
2) celiac disease.

Q8: pt of Crohn's disease presented with these lesions on his abdomen. What's the name of these lesions & what is the cause?

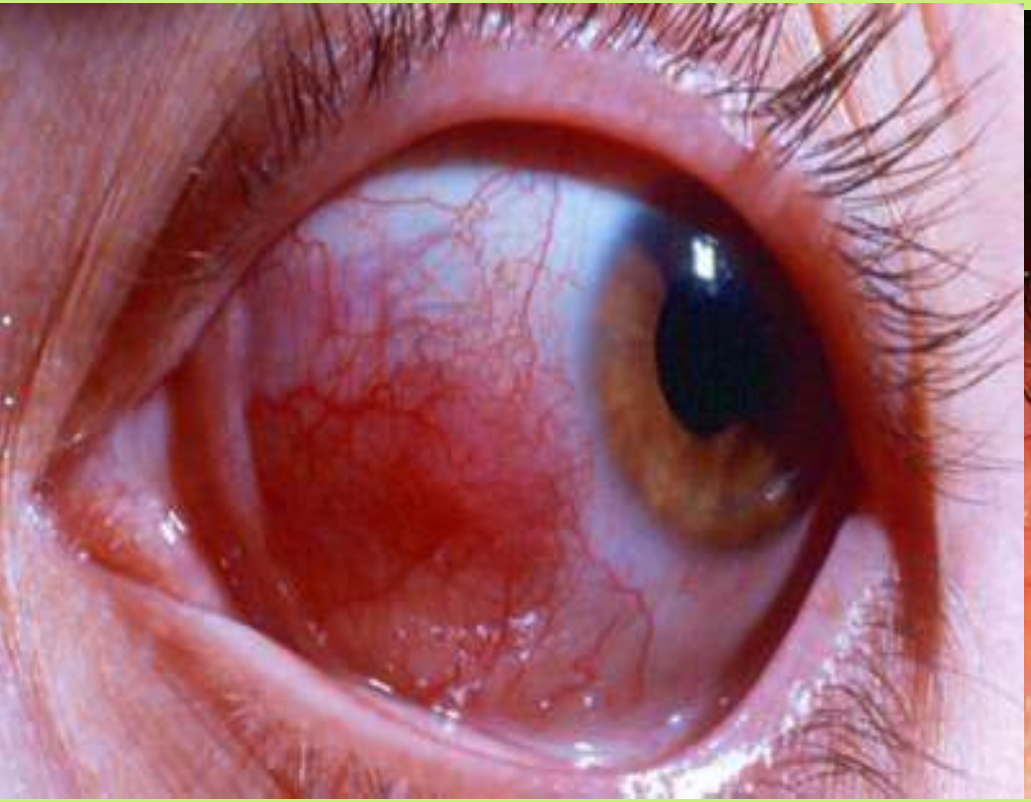
Abdominal Stria due to Steroid Therapy in IBD.

Q3: Pt with CHRONIC hepatitis B. what is the cause of this picture?



liver cirrhosis

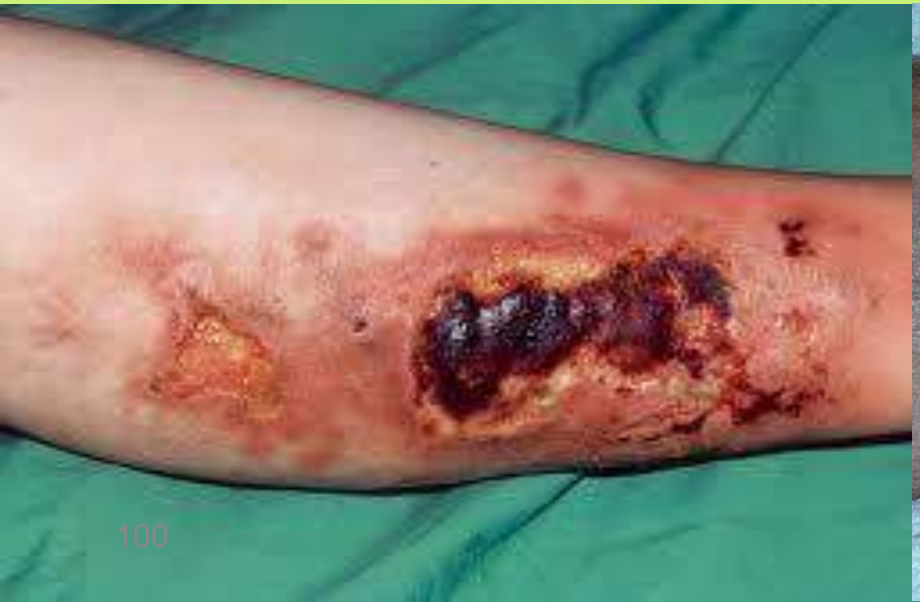
Q14: A pt presented with bloody diarrhea & tenesmus as well as this painless eye lesion.
1- what is your diagnosis?
2- what is this eye lesion

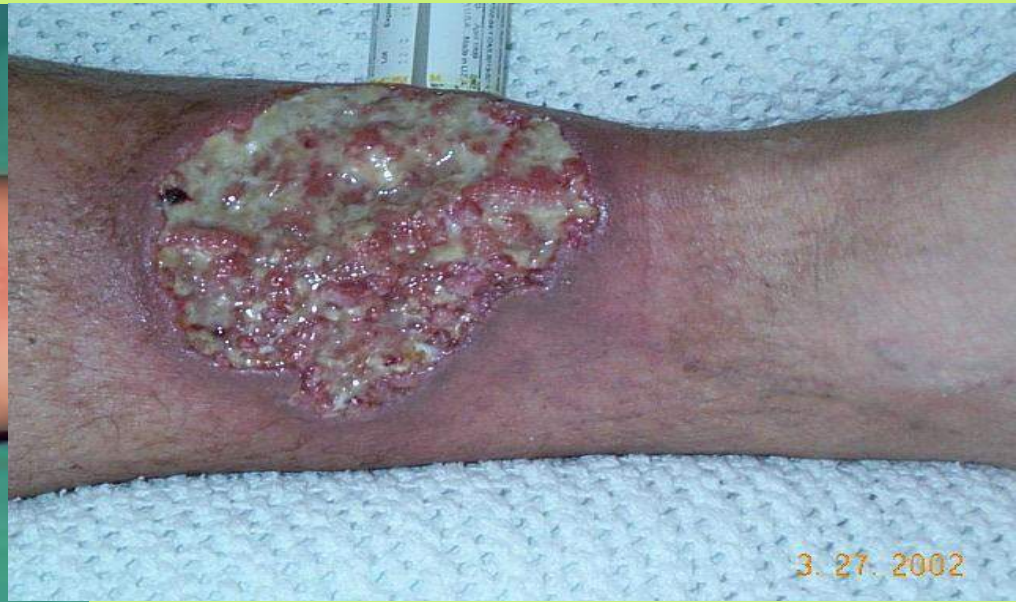


1- Ulcerative colitis.
2- Episcleritis.

Question #27

This patient has bloody diarrhea. What do you call this picture?

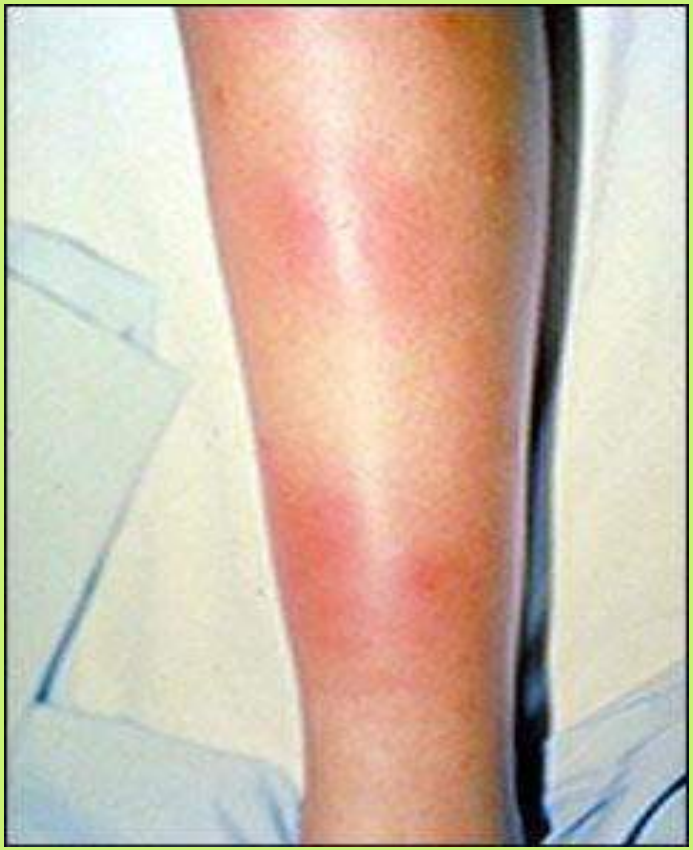


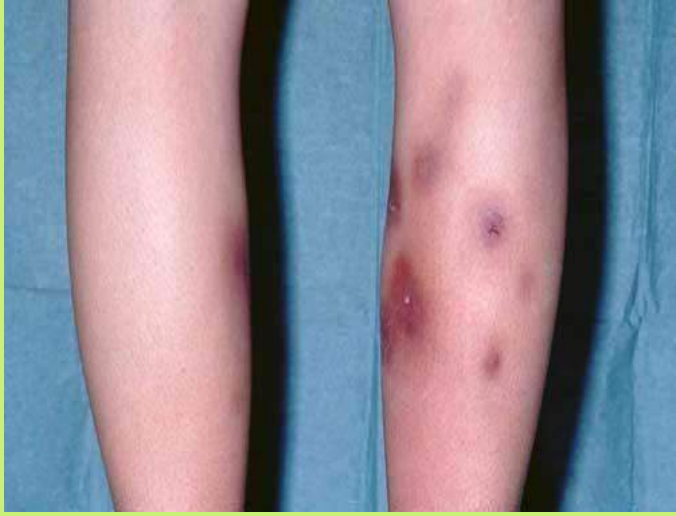


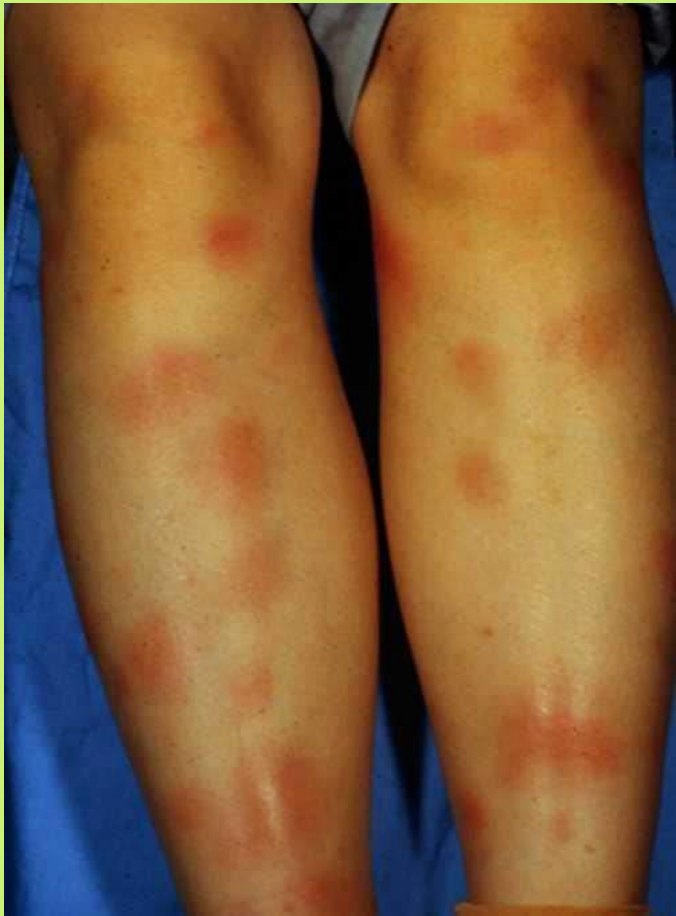
Pyoderma gangrenosum

Patient has bloody diarrhea & this skin lesion.

1. What's your diagnosis?
2. Mention one cause?
3. Mention a respiratory cause?

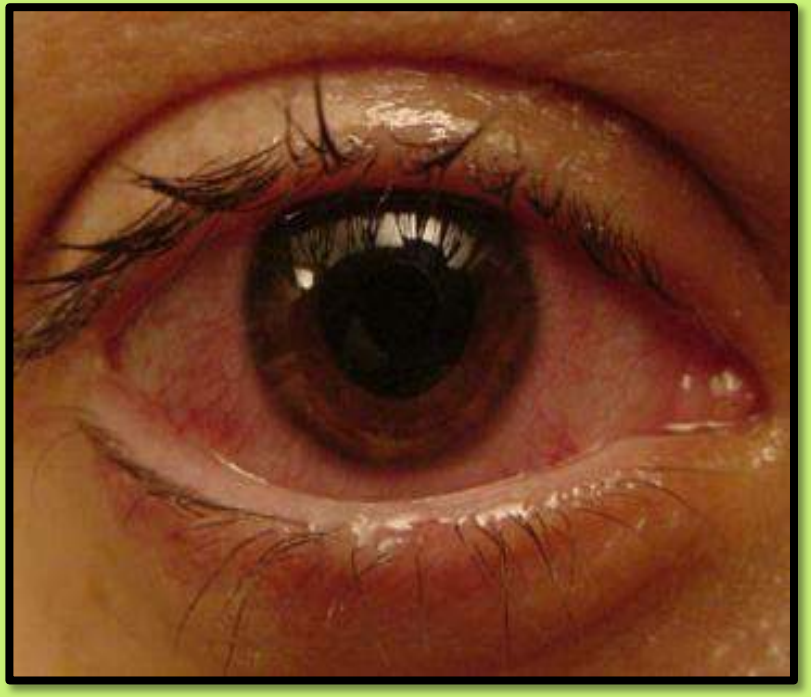


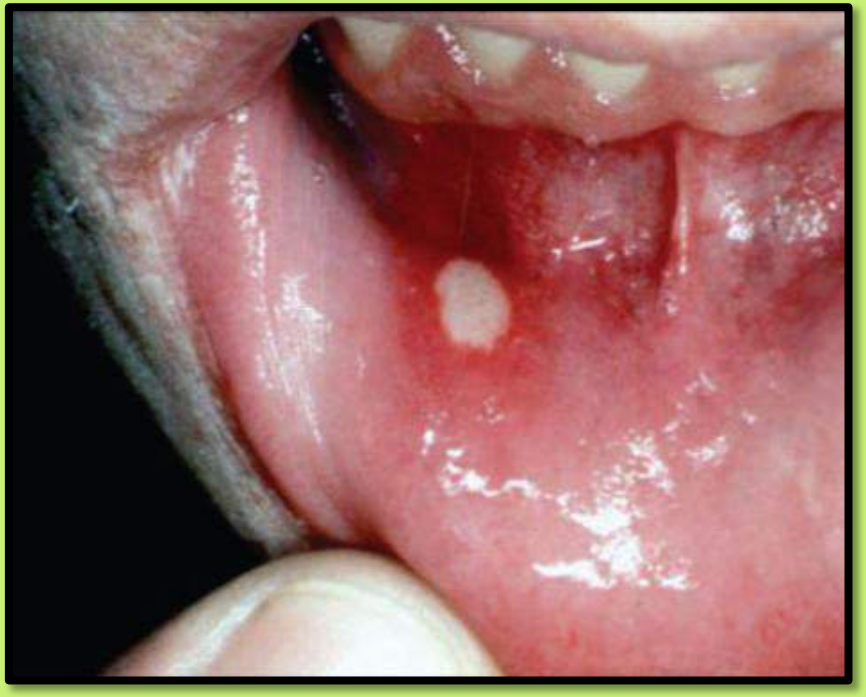




1. Erythema nodosum.
2. Inflammatory bowel disease, mostly ulcerative colitis
3. Sarcoidosis

Q2: A 25 YO non-smoker female presented to the ER with bloody diarrhea mixed with mucus & tenesmus. Mention 2 DDx?





A. Behchet's disease .

B. IBD.

Case #2

A male patient presented complaining of itching for 3 months not responding to antihistamine. His lab data:

- Total protein 85 / Albumin 35 / Bilirubin 80 / Direct 20
- GGT and ALP high
- Antimitrochondial titer positive 1/280.
- ALT and AST normal.
- Ultrasound normal

1. Mention two signs on the examination of this patient.
2. What is the Diagnosis ?
3. What is the finding expected on ERCP?
4. Diagnostic confirmatory test?
5. What's the treatment for his itching?

1. Jaundice / spider nevi …etc
2. Primary biliary cirrhosis.
3. ??? Some said obstruction, others answered normal. We're not sure.
4. Liver biopsy.
5. Cholestyramine.

Case #2

A 30 YO female patient presented with jaundice & itching. Can't recall the rest of the case!
In lab results there was direct hyperbilirubinemia, AST & ALT were slightly high, ALP = 800, +ve anti- mitochondrial antibody, biliary tree is
normal (on US).

1. What's your diagnosis ?
2. Mention 2 serological test ?
3. Best diagnostic test ?
4. Treatment?

1. Primary Biliary Cirrhosis.
2. ANA, ASMA.
3. Liver biopsy.
4. Steroid (not sure).

Case #4

A previously healthy 36 YO male applied for a job in KSA, his application was refused because of abnormal liver function test. He drinks Alcohol occasionally, he was asymptomatic. his AST and ALT were mildly elevated. (numbers were mentioned in all the following tests, so you should know the normal ranges), his ALP was in normal range, +ve for Hbs IgG, -ve for Hbc antigen & Hbs antigen, –ve for other hepatophilic viruses. There was increase in LDL, Triacylglicerides, and a high BMI. Tests for metabolic and inherited liver diseases were normal.

1 Mention 3 DDx ?

2 Mention 2 tests to confirm your diagnosis ?

3 Mention 5 health problems associated with his BMI

- chronic hepatitis B infection, steatohepatits, Autoimmune diseases.
- (definite Dx) >> Ds-DNA of hepatitis B, Liver biopsy .
- DM, HF, HTN, OSA, Atherosclerosis.

Case #1

46 YO male pt comes vomiting coffee ground blood & black stools. Pulse: 96, RR: 24, BP: 100\60. He had dizziness, general fatigue & weakness, SOB, & palpitation at rest.

- **The first physical sign u want to look for?**
- **Indications of severity?**
- **Management?**

1. postural hypotension .
2. massive upper GI bleeding.
3. IV fluid, Blood.

Case #2

A47 YOpt, known case of liver cirrhosis, presented with decreased level of consciousness. He takes propronolol, furosemide, spironolactone, lansoprazole, lactulose. He has been constipated for the last 2 weeks. His wife noticed abdominal distension. On P/E he is jaundiced, has ascites but no tenderness, paracentesis revealed clear fluid with 55 neutrophils per ml, gram stain was -ve. Lab results showed hyponatremia, hypokalemia, high creatinine.

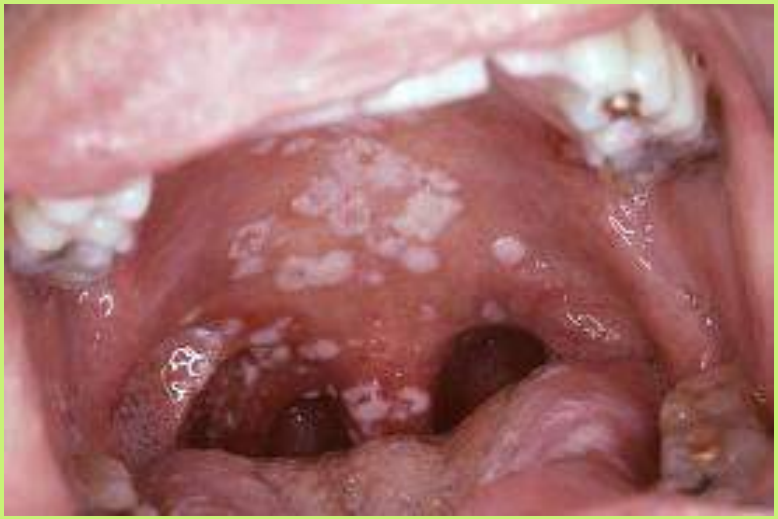
1. **What's the Dx?**
2. **What's the cause of his hypokalemia?**
3. **Give 2 possible causes for his condition?**

1 Hepatic encephalopathy.
2 Furosemide.
3 Constipation, Hypokalemia (= diuretics).


Infections

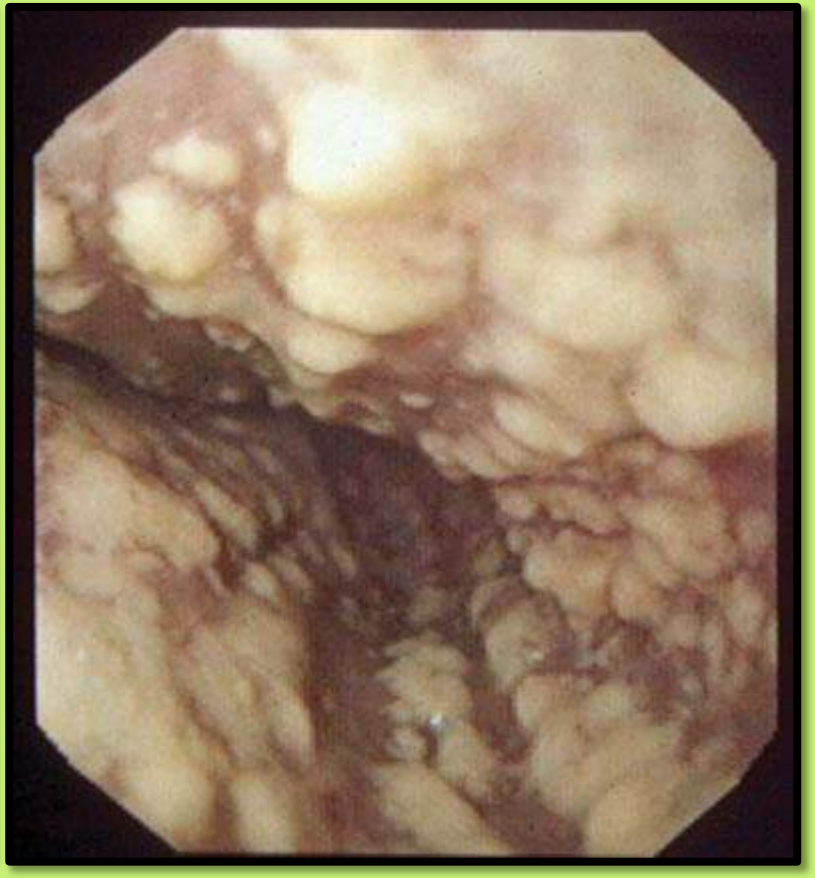
Question #9

This patient is receiving inhaled steroids, what's your diagnosis?



Oral Candidiasis

Q6: 34 YOpt with HIV presented with these lesions, what is your Dx?

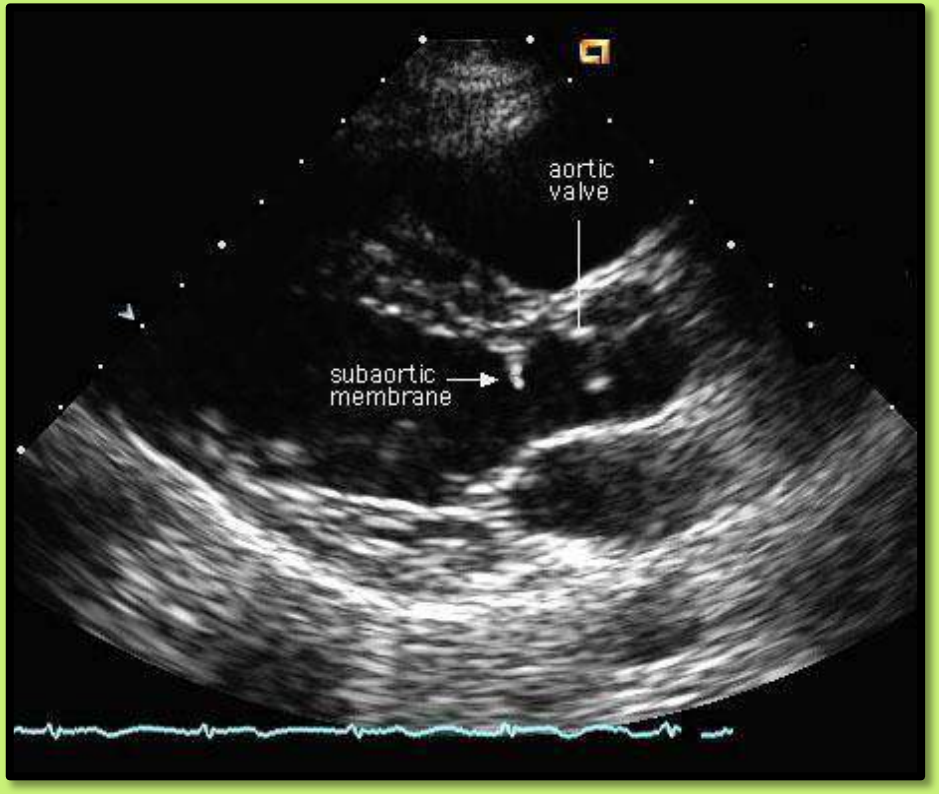


Candidiasis.

Q5: Patient presented with intermittent fever of 2 wks duration, he has a Hx. of dental caries & hematurea. On P/E there was heart murmur, otherwise the exam was unremarkable! Mention 2 tests to confirm Dx.?

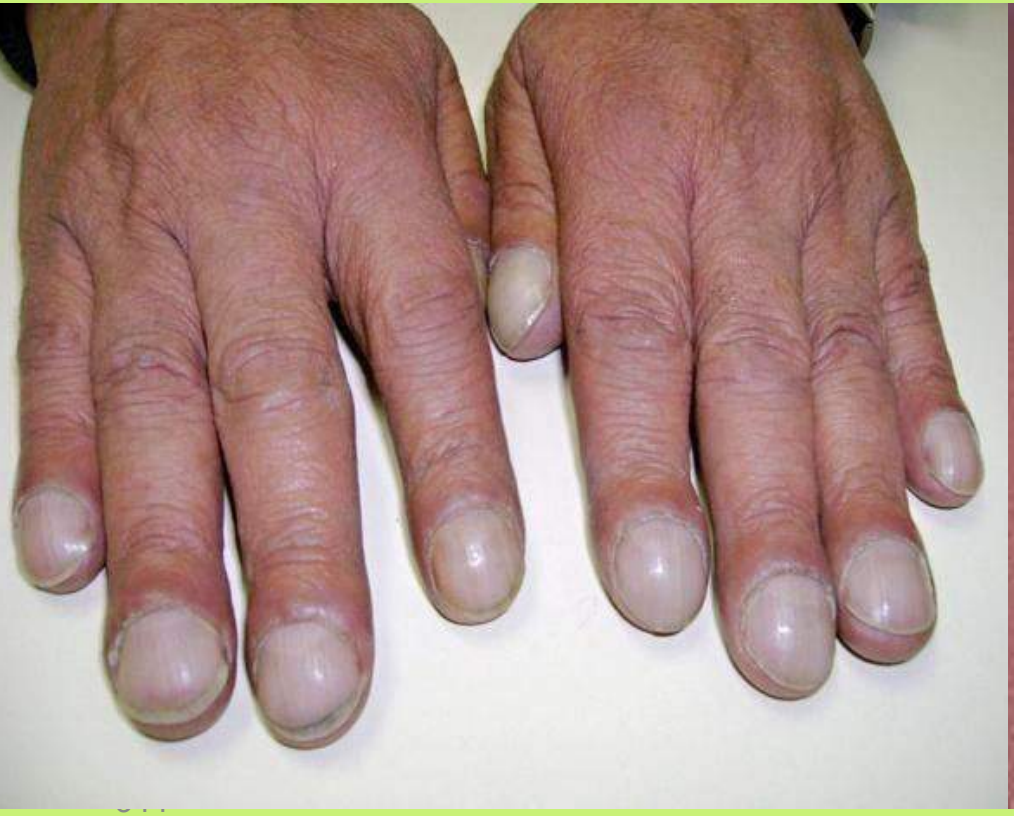
1. Blood culture.
2. Echocardiography.

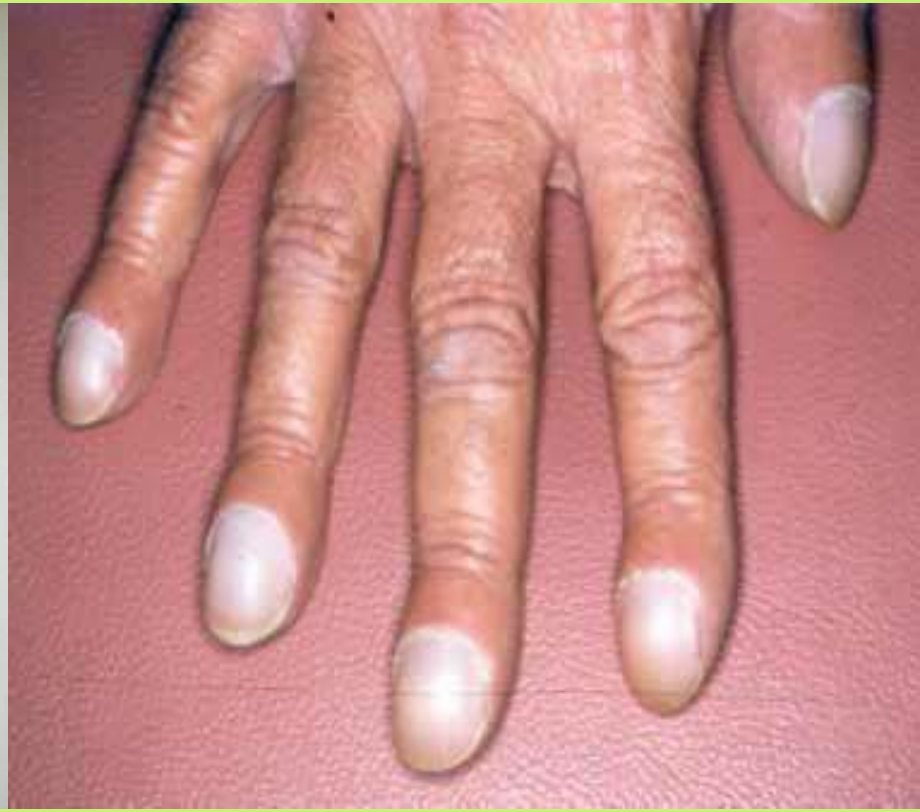
Q5: A 32 YO Pt with a Hx of IV drug abuse & renal dialysis, was presented with fever, malaise & endurance fatigue. Chest auscultation has revealed pan-systolic murmur. An ECHO showed the following, what is your spot Dx?



Infective endocarditis.

Q2: A pt presented with fever & murmur on auscultation since 8 weeks ago, what is your Dx? And mention other cardiac cause for this?

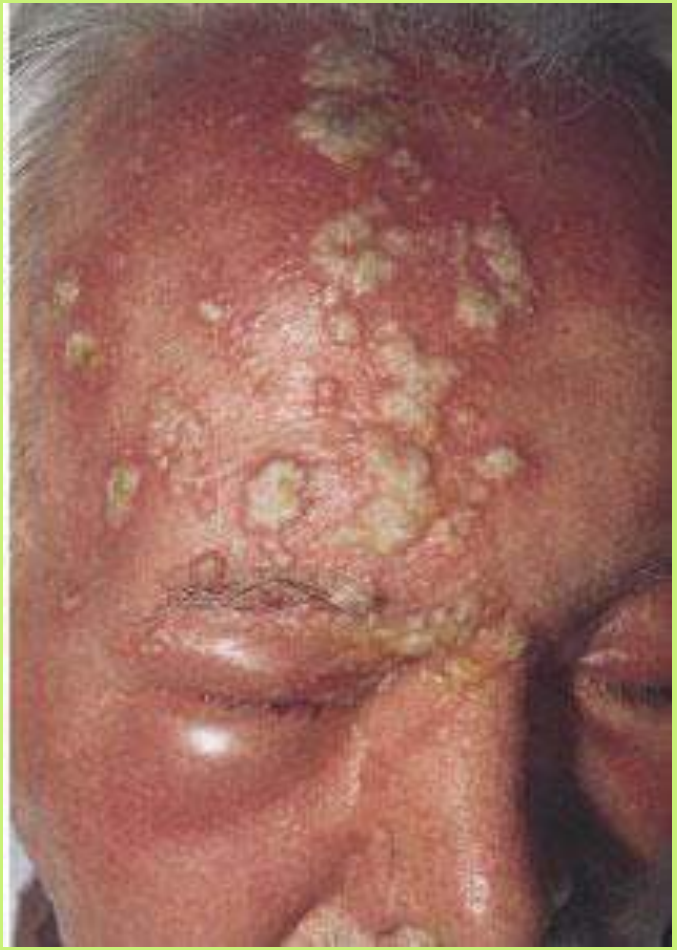




A. Subacute Infective endocarditis.

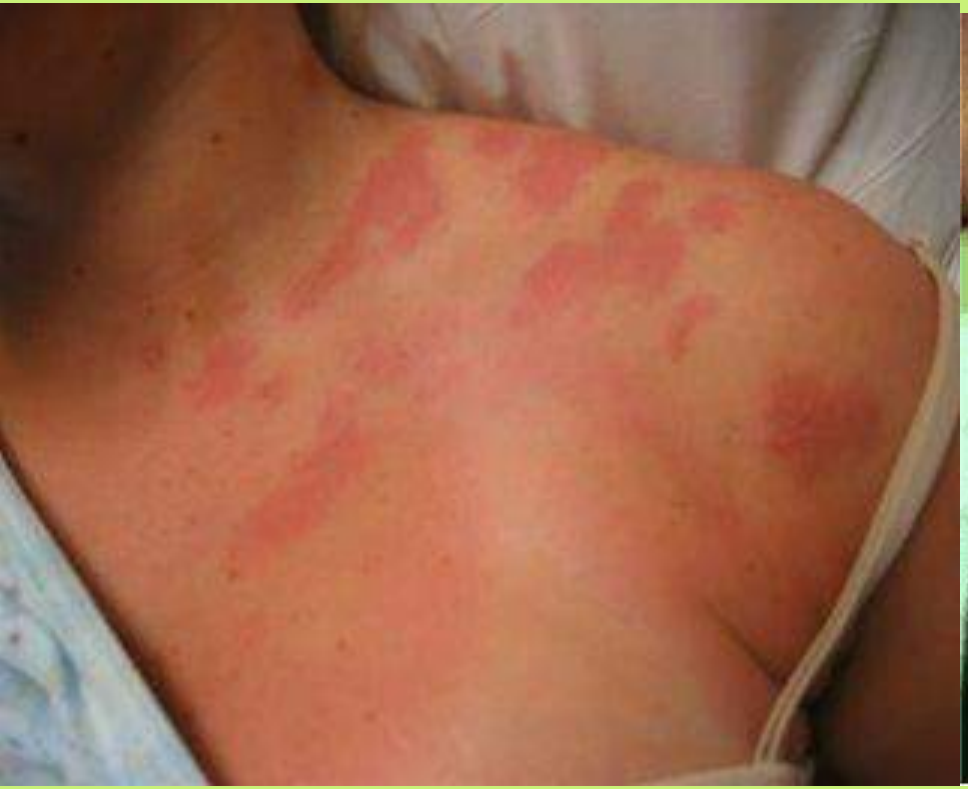
B. congenital cyanotic heart disease.

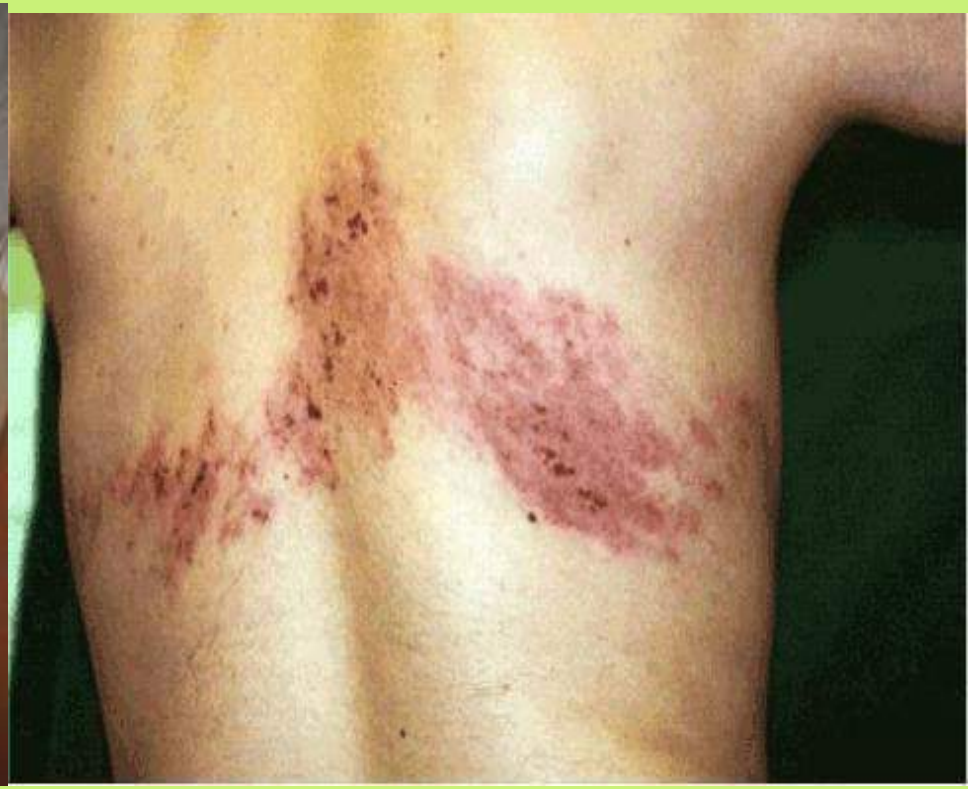
Q5: This is a 55-year old man with history of lymphoma. What is the diagnosis?



Herpes Zoster Ophthalmicus

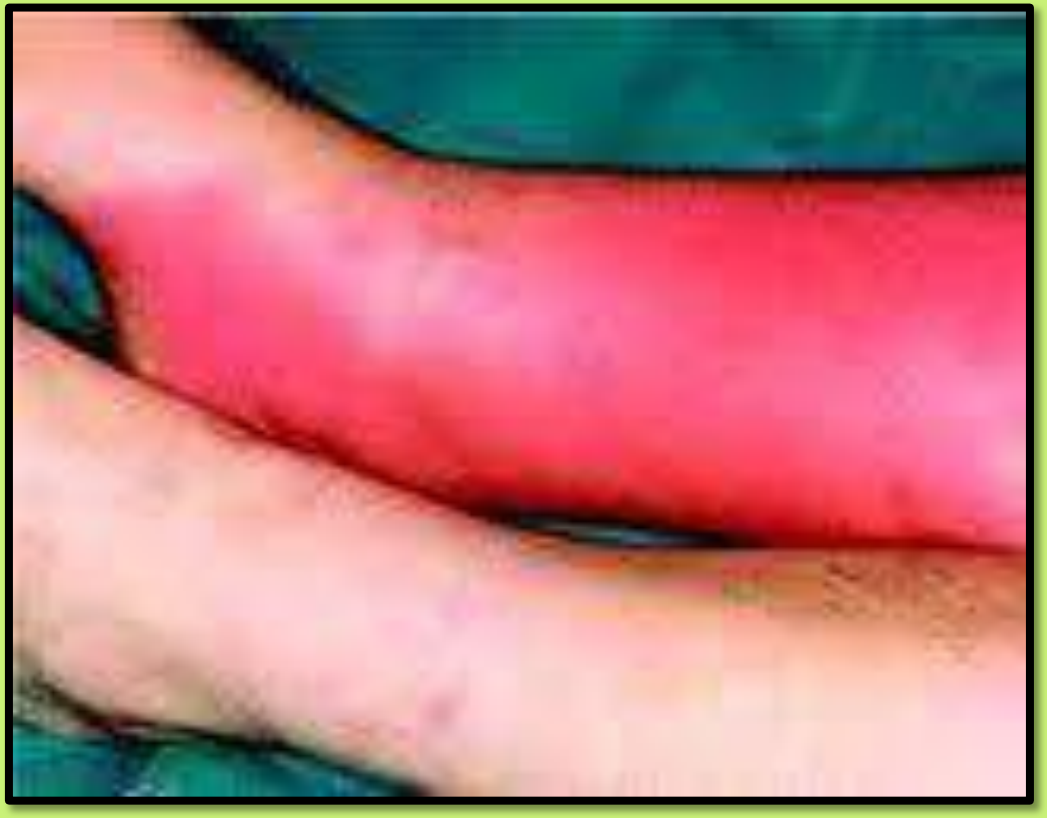
Q10: a pt with skin lesions on a Dermatological distribution. What is your Dx?





Herpes zoster.

Q3: This pt was presented with swollen, red, warm & painful right leg. WBCs = 17.000, what is your spot Dx.?



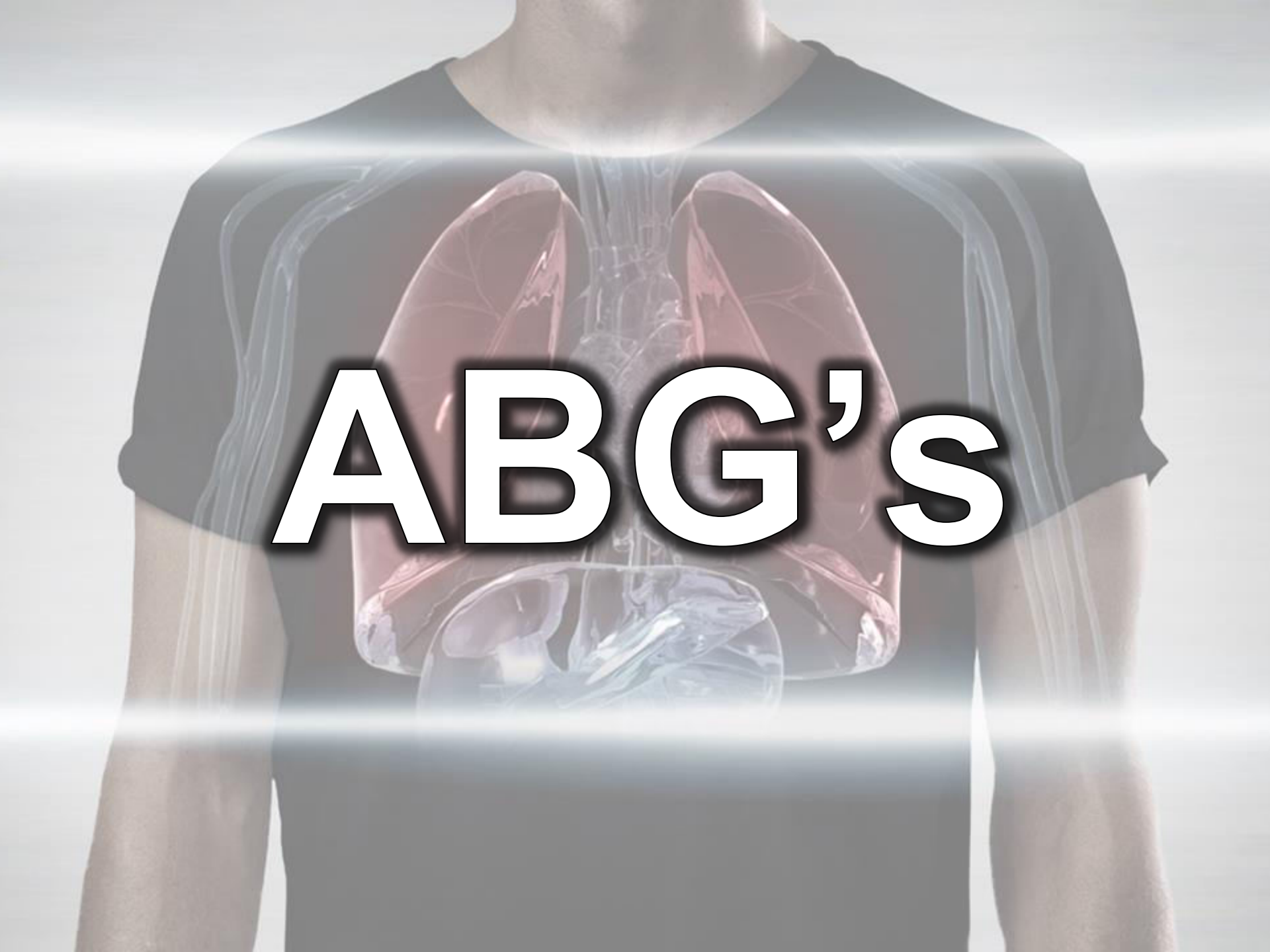
Cellulitis.

Case #1

24 YO female, presented with headache, fever, & deterioration in level of consciousness, brain CT was free, the L.P s (values shows high WBS, LOW glucose).

Q1: what is the Dx?
Q2: give 2 lines of treatment.
Q3: give one major complication.

1.Acute meningitis.
2. IV antibiotics , Anti-pyretics .
3.brain abscess, seizure, encephalitis .


ABG's

Case 1 :

There were results of an ABG, showing :

PH: 7.2, $PaCO_2$: 22, HCO_3: 10 , Na: 130,

K: 5, Cl: 100, Glucose: 60, Ca: 2.3

1. What is the disorder?
2. Calculate the anion gap.
3. Mention three causes for this abnormality.

1. Wide anion gap Metabolic acidosis .
2. 20 .
3. (DKA, Uremia, Lactic acidosis, Methanol poisoning) .

Q4: Given the following lab results, what's the anion gap?

Na = 145 K= 3.7 Cl =100 Ca= 2.5

Glucose = 143 HCO3 =10

Creatinine = 2.1

Anion gap= Na – (Cl + HCO3)

145- (100 + 10) = 35

1- Xanthelasma.
2- Hypercholesterolemia.

Q8: Fill the table with the suitable arrow.

Type of Disorder	pH	PaCO2	[HCO3]
Metabolic Acidosis	↓	↓	(1)
Metabolic Alkalosis	↑	↑	↑
Acute Respiratory Acidosis	↓	↑	↑
Chronic Respiratory Acidosis	↓	↑	(2)
Acute Respiratory Alkalosis	↑	↓	↓
Chronic Respiratory Alkalosis	↑	↓	↓↓

[H+] = 24 × PaCO2 / [HCO3-]

1→ ↓ dec.

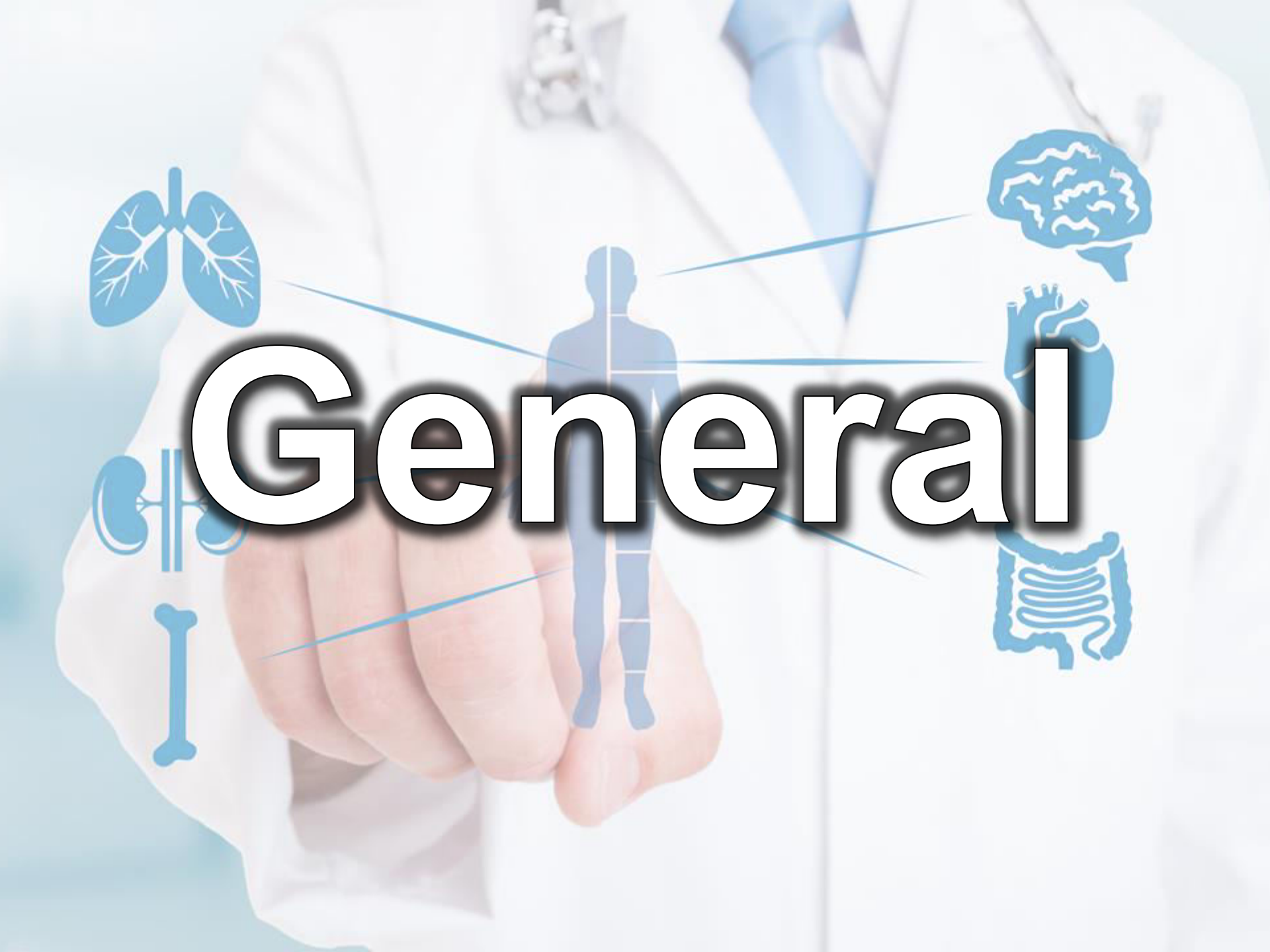
2→ ↑↑ inc inc.

Q3: A 39 YO woman was admitted with a Hx of generalized weakness, dyspnea, continuous nausea & diarrhea. Bowel motions were frequent & watery.

- **ABG: pH 7.29, $PaCO_2$ 25.6, PaO_2 98**
- **Na^+=125, K^+=2.8, Cl^-=101, HCO_3=14**

- what is the abnormal electrolyte imbalance in this pt?

Simple metabolic acidosis.

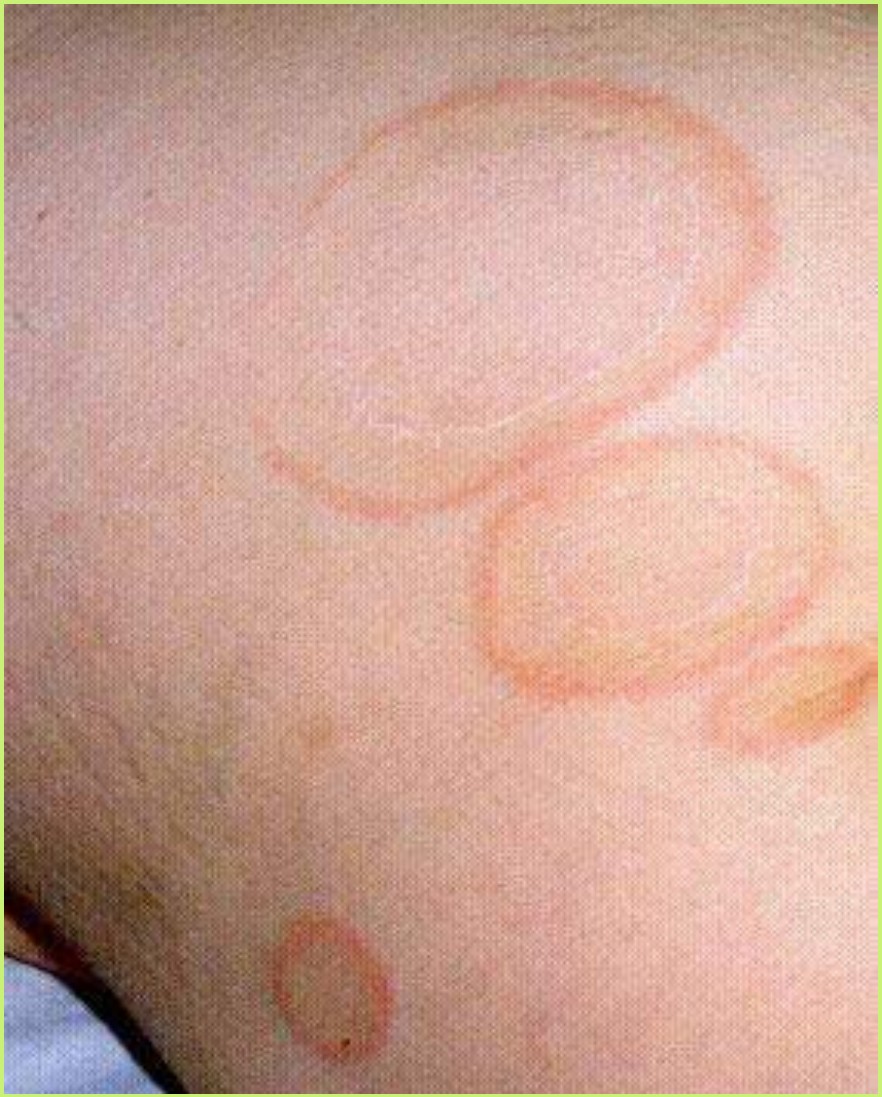

General

Q2: A-What is the finding?
B-Mention two causes.

A. Palmar Erythema

B. Thyrotoxicosis, Liver Cirrhosis, Pregnancy .

Q13: A-What is this skin lesion? B-What is the diagnosis?



A. Erythema marginatum

B. Rheumatic fever

Question #13

What's your diagnosis?

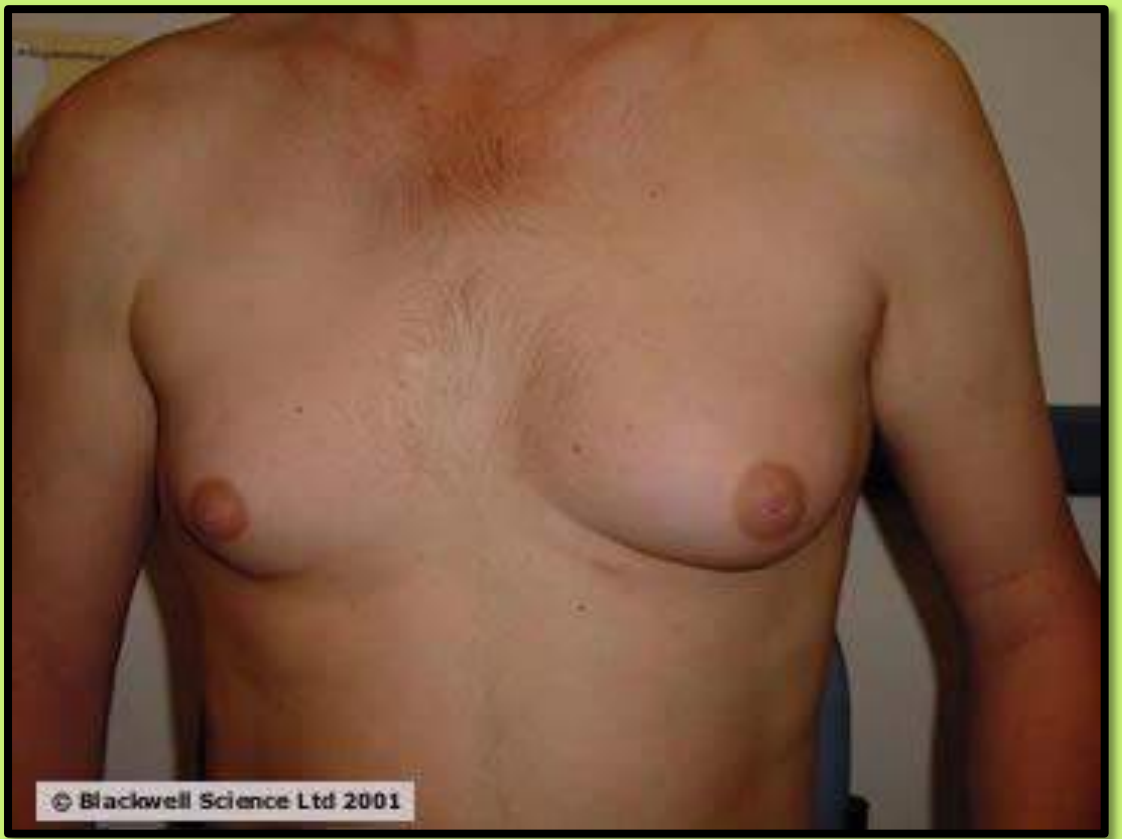
Left facial palsy

Question #30

Mention 2 causes of this.

1. Bronchiectasis.
2. Lung cancer …etc

Q9: 67 YO patient taking multiple drugs to control his irregular heart rate, what is the name of the drug that caused this finding ?

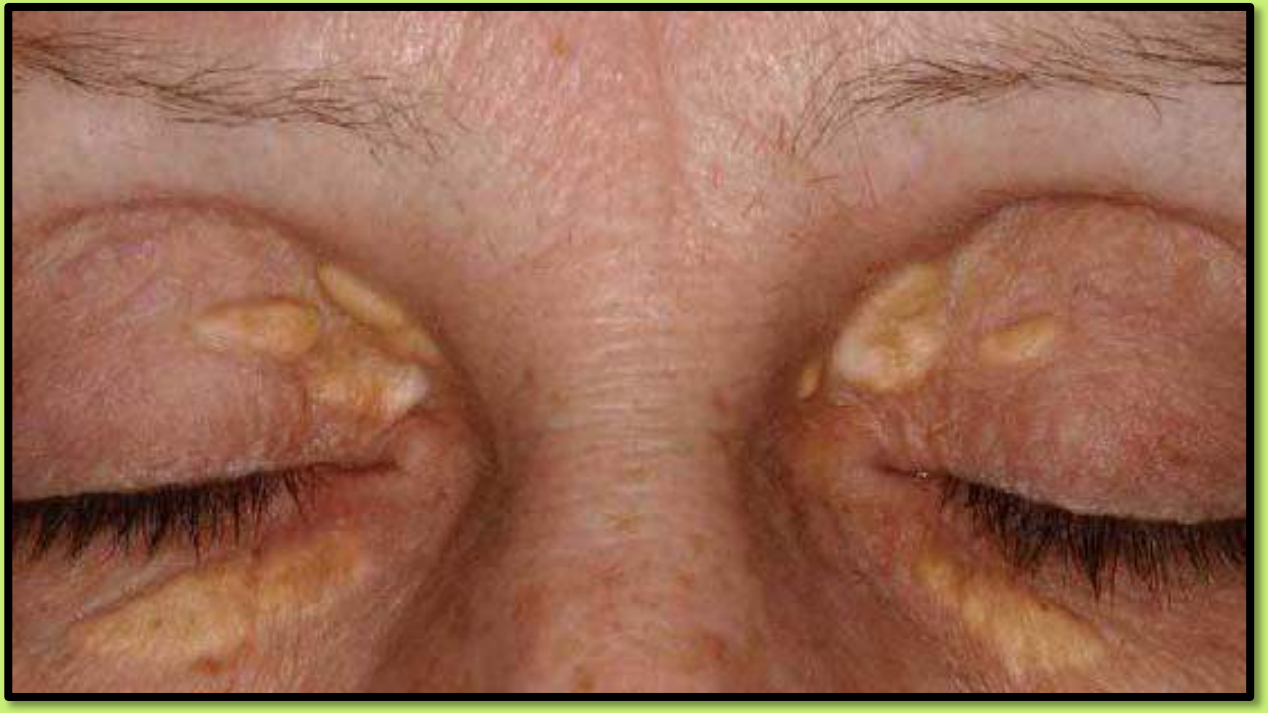


DRUGS CAUSING GYNECOMASTIA

Mnemonic: '**DISCKO**'

- Digoxin
- Isoniazid
- Spironolactone
- Cimetidine
- Ketoconazole
- Oestrogen

Q7: What is this sign? &what is the cause of it?




Best of Luck!