IN THE NAME OF GOD

CASE PRESENTATION

A 46 Y/O Female with Recurrent VTE & Migratory Thrombophlebitis

By:

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Hematologist and medical oncologist,
Tehran Cancer Institute

December 2025

IRSTH
Iranian Society of Thrombosis and Hemostasis
انجمن ترومبوز هموستاز ایران

- The Patient is a 46 y/o Female without Significant Past Medical History that her complaints began Since 3 Years Ago with Abdominal Discomfort, erythema and mild edema in right arm that it was accompanied by pain.
- The patient was reffered to Gastroenterologist and Underwent an Upper GI Endoscopy that Revealed No Significant Results.(December 13,2022)
- Then the UltraSonography was done and was Revealed superficial Thrombophlebitis at Distal Part of Superficial Basilic vein (December 17,2022)

Patient Profile

- **Age:** 46-year-old female
- **Medical History:** No significant prior medical history.

Initial Presentation (December 2022)

- **Symptoms:**
  - Vague abdominal discomfort.
  - Erythema, mild edema, and pain in the right arm.

Initial Workup (Gastroenterology)

- **Upper GI Endoscopy (Dec 13, 2022):**
  - Revealed no significant results.
- **Ultrasonography (Dec 17, 2022):**
  - Revealed superficial **thrombophlebitis** in the distal part of the superficial basilic vein.

- The Patient Went to a Neurologist At First,for pain and paresthesia in her Arm,and Corticostreoid and Anti-Histamine were prescribed for Her.

- But the Symptoms Got Worse and her legs also Became Painful and swollen,then the patient was Reffered to a Rheumatologist and Hydroxychloroquine was Added to treatment,that had minimal and temporary Effect.

- Color Doppler sonography was done and Revealed DVT in left lower limb and patient was treated with AntiCoagulant and the symptoms slightly subsided.

- The patient reffered to a hematologist-Medical oncologist this time and subsequent Work UPs were done:

Hematology

Approved By: Hemato2

Test Name	Result	Units	Reference Range
Complete Blood Count	@		
WBC	**13.72 ***	10^3/uL	4.4 - 11.0
RBC	5.13	10^6/uL	M : 4.1 - 5.7 F : 3.8 - 5.2
Hemoglobin	14.4	g/dL	13.1-17.2 M(45-64 yr) 11.7-16.0 F(45-64 yr)
Hematocrit	41.7	%	35-47 F(45-64 yr)
MCV	81.3	fL	81- 101 (F:45y - 64y)
MCH	28.1	pg/cell	27 - 35 (F:45y - 64y)
MCHC	34.5	g/dl	32 - 36
RDW - CV	13.0	%	11.6 - 15
Platelets	181.0	10^3/uL	150 - 450
PDW	12.4	%	
MPV	10.1	fL	8 - 12.7
Sedimentation Rate			
ESR (1hr)	7	mm	Up to 20 (Female < 50y)

WBC Differential (%)	
Neutrophil	70.9
Lymphocyte	19.9
Monocyte	6.0
Eosinophil	1.9
Basophil	0.3
Band	1.0

Note: @ No other pathologic changes seen in PBS.
*=Checked

Continued...

Urine analysis

Approved By:

Specimen Urine

Macroscopic

Color	Yellow
Appearance	Sl. cloudy
Blood (RBC) #	(+++)
Urobilinogen	Negative
Bilirubin	Negative
Protein$	Trace
Nitrite	Negative
Ketones	Negative
Glucose	Negative
Reaction PH	6.0
Specific Gravity	1.030
Leukocytes #	Negative

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$Total protein with turbidimetric method:39mg/dl

Note: #The minimum sensitivity of the strip is 5 – 10 erythrocytes and 10 – 25 leukocytes / µl urine

Note: Interfering factors such as pH, drugs, proteases and bacterial contamintation with test strip, can lead to false negative or false positive results.

Microscopic

WBC /hpf	1-2
RBC /hpf	25-30
Epithelial Cells	Few squamous
Casts /lpf	None
Crystals	None
Bacteria	Few
Mucus	Sl. amount

Blood Biochemistry

Approved By: Bi-3

Test	Result	Units	Reference Range
Urea	30	mg/dl	Adult: 13 - 43
Creatinine	0.89	mg/dl	Female(18-60 years): 0.50-1.00
eGFR (CKD-EPI 2021 Creatinine)	81	ml/min	Normal GFR : 90-120 Mild decrease in GFR : 60-89 Moderate decrease in GFR : 30-59 Sever decrease in GFR : 15-29 Kidney failure : <15

۰۲/۰۲/۰۵ ۴۶ سال 02-134861

Continued...

SGPT (ALT)	20	IU/L	Male : Up to 41 Female : Up to 31
Alkaline Phosphatase	82	U/L	Adults Female: 35-105
Complement (C3)(Immunoturbidimetric)	**213**	mg/dl	90-180
Complement (C4)(Immunoturbidimetric)	**84**	mg/dl	10.0-40.0

Immunoserology1

Approved By: Bi-3

Test	Result	Units	Reference Range
ASOT	55	Iu/ml	Adults : Less than 200
Wright Agglutination Test	Negative		Negative
Coombs Wright Agg.Test	Negative		Negative
2ME Brucella Agg.Test	Negative		Negative
RF (Immunoturbidimetric)	<5.0	IU/ml	Up to 14.0
CRP (Immunoturbidimetric)	**21.4**	mg/l	Up to 5.0

ImmunoSerology2

Approved By: EN-2

Test	Result	Units	Reference Range
Anti dsDNA-NcX IgG (ELISA)	2.3	IU/ml	<100 IU/ml: Negative >100 IU/ml: Positive

Note: **Autoantibodies against dsDNA and/or nucleosomes.**

CH50(ELISA)	95.8	% Ref.	0 - 50 : Low 51- 150 : Normal >151: High

Endocrinology

Approved By: EN-5

Test	Result	Units	Reference Range
TSH (ECLIA)	1.91	ulU/ml	0.27 - 4.2 (Adult) 0.17 - 8.9 (>50 years) 1st Trimester: 0.33 - 4.59 2nd Trimester:0.35 - 4.1 3rd Trimester: 0.21 - 3.15
Free T4 (CLIA)	0.9	ng/dl	0.7-1.48(Adult) 1st Trimester: 0.7 - 2.0 2nd-3rd Trimesters: 0.5-1.6

۰۲/۰۲/۰۵ ۴۶ سال 02-134861

Continued...

Special Biochemistry

Approved By: EN-5

Test	Result	Units	Reference Range
25(OH)Vit.D Total (CLIA)	31.4	ng/ml	Deficiency :<10 Insufficiency :10-30 Sufficiency :30-100 Toxicity :>100
Anti CCP(CLIA)	< 0.5	u/ml	up to 5.0

Biochemistry

Test	Result	Unit	Normal Range
LDH	413	IU/L	Up to 500
B2 microglobulin(BMG)	1.2	mg/L	1 - 3

Immunoassays-biological marker

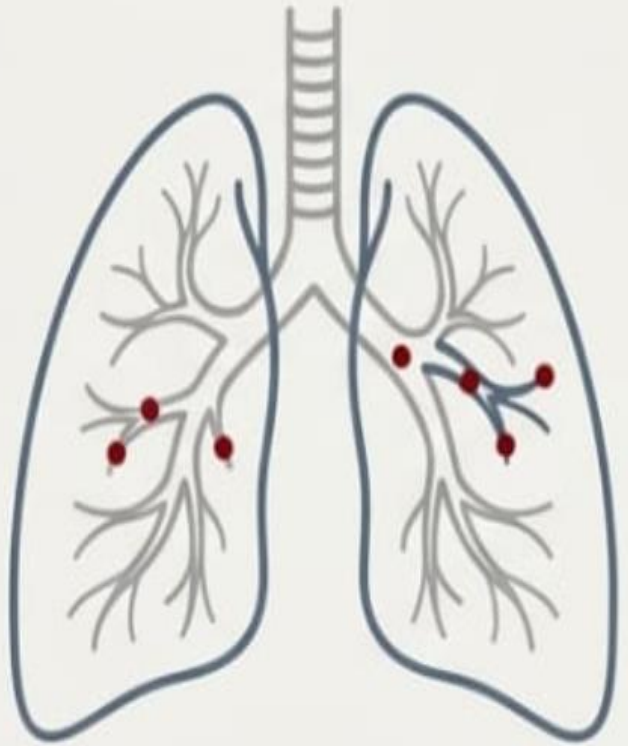
Test	Result	Unit	Method	Normal Range
Beta HCG(ECL)	<1.2	mIu/ml	ECL	Negative for pregnancy (at least 3 weeks LMP): <5 Positive : >25, Borderline : 5-25 3 weeks LMP : 5-50, 4 weeks LMP : 5-426 5 weeks LMP : 18-7,340, 6 weeks LMP: 1,080-56,500 Non pregnant adult : premonopusal : <2.3 , postmonopusal :<7.3
CEA (ECL)	3.5	ng/ml	ECL	Smoker < 10 Non smoker < 5
CA 19-9	H >1200.0	U/ml	CL	Up to 37 most important utility is in diagnosis and monitoring of pancreatic ca. Elevated level can be seen in healthy individual,bengin or ca. of other organs ; particulary hepatobilliary or G.I system.
CA 125	H 91.0	U/ml	CL	Up to 35.0 recommended for diagnosis and manegment of ovarian ca. Also may be elevated in healthy individual (menstration,...) , bengin condition (endometriosis, PID,pregnancy, utrine fibroid,...) or ca. of other organs.
Alpha fetoprotein (ECL)	2.3	IU/ml	CL	Non pregnant:Up to 7.2 Pregnant :15W:16-71/ 16W:21-92/ 17W:24-105 /18W:28-120 /19W:35-149

- Noting Significant elevated CA 19-9,A Chest & Abdominopelvic CT Scan Was done: (15 May,2023)
- The Chest CT Scan was Normal.
- In Abd.&P. CT Scan **No** Significant Changes or Pathologic Lesions Were Reported But two Subseosal Uterine Fibroids in Fundus and left side Of Uterus(29 & 50 mm in Size)

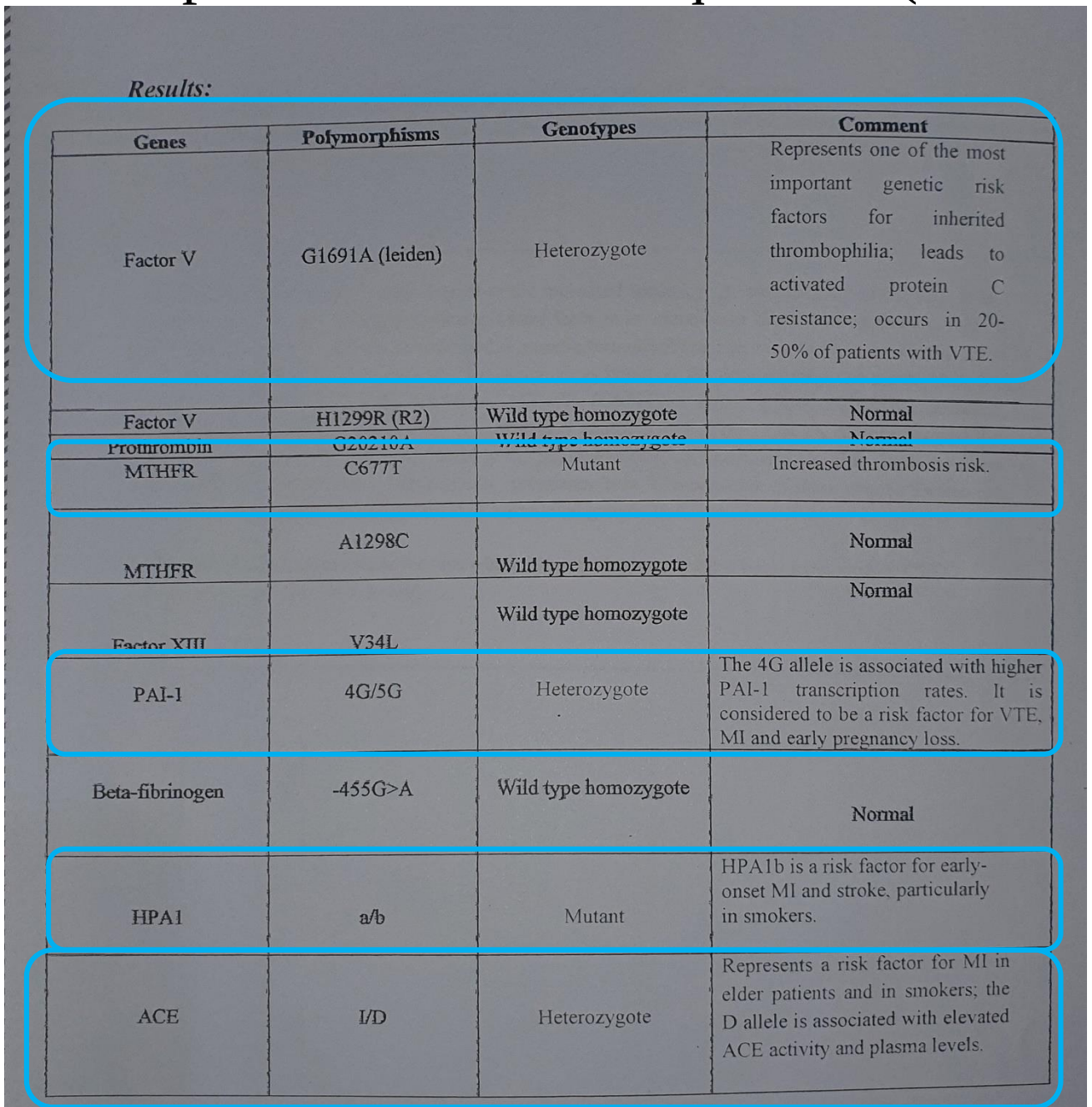
The Clotting Cascade Becomes Refractory to Treatment

Event (May 21, 2023 - 3 months after initial symptoms)

- **Crisis:** Patient develops pleuritic chest pain **despite the use of anticoagulants**.
- **Diagnosis:** Pulmonary CTA reveals **Pulmonary Thromboembolism (PTE).**
  - Location: Distal left pulmonary artery (and segmental branches) and proximal lobar branches of the right pulmonary artery.
- **Intervention:** Warfarin was added to treatment with a target INR of 2-3.



- Now the Thrombophilia Panel was Requested: (June 12,2023)



Results:

Genes	Polymorphisms	Genotypes	Comment
Factor V	G1691A (leiden)	Heterozygote	Represents one of the most important genetic risk factors for inherited thrombophilia; leads to activated protein C resistance; occurs in 20-50% of patients with VTE.
Factor V	H1299R (R2)	Wild type homozygote	Normal
Prothrombin	G20210A	Wild type homozygote	Normal
MTHFR	C677T	Mutant	Increased thrombosis risk.
MTHFR	A1298C	Wild type homozygote	Normal
Factor XIII	V34L	Wild type homozygote	Normal
PAI-1	4G/5G	Heterozygote	The 4G allele is associated with higher PAI-1 transcription rates. It is considered to be a risk factor for VTE, MI and early pregnancy loss.
Beta-fibrinogen	-455G>A	Wild type homozygote	Normal
HPA1	a/b	Mutant	HPA1b is a risk factor for early-onset MI and stroke, particularly in smokers.
ACE	I/D	Heterozygote	Represents a risk factor for MI in elder patients and in smokers; the D allele is associated with elevated ACE activity and plasma levels.

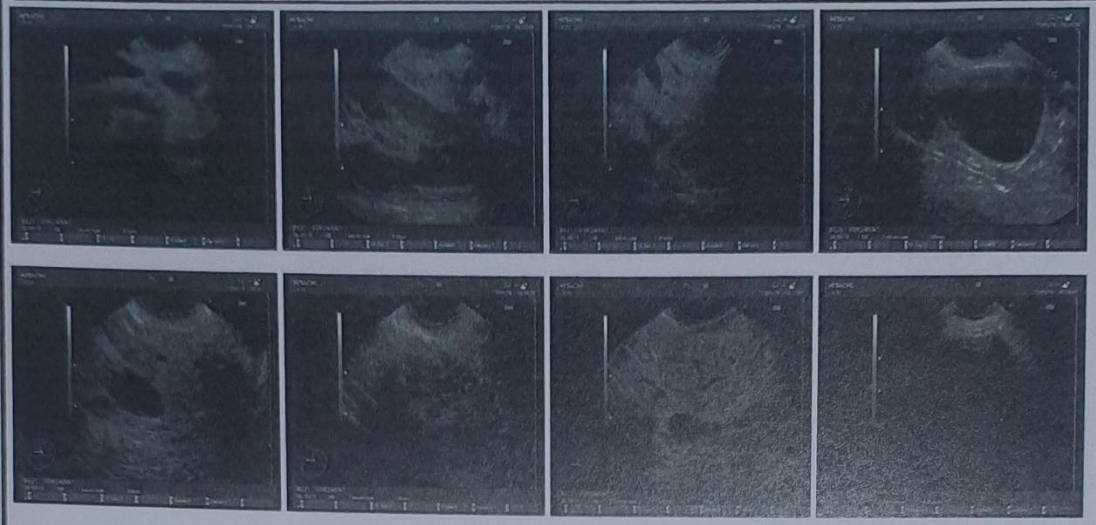
29 May,2023

EUS Report

Endoscopist :

نام بیمار

تاریخ : 1402/03/08 جنسیت : زن سن : 46



Medical History : High CA 9-19
Indication : evaluation of pancreas
Description Of The Procedure : EUS was done by linear echoendoscop, during the procedure blood oxygenation and cardiac monitoring was done continuously.the patient tolerate the procedure well, EUS was done carefully with following finding:
Biliary Tree : CBD = 4 mm was normal
CBD wall was normal
Gallbladder : GB was normal
GB wall was normal
Ampulla of vater : normal
Liver : Left liver lobe was normal
P.V = 10 mm was normal
Pancreas : Pancreas in all part was normal
P.D in all part was normal
Others : Aorta and celiac axis was normal

Final Diagnosis

Normal pancreas
CBD 4 mm was normal & GB was normal

Recommendation : Thank you

22 June,2023

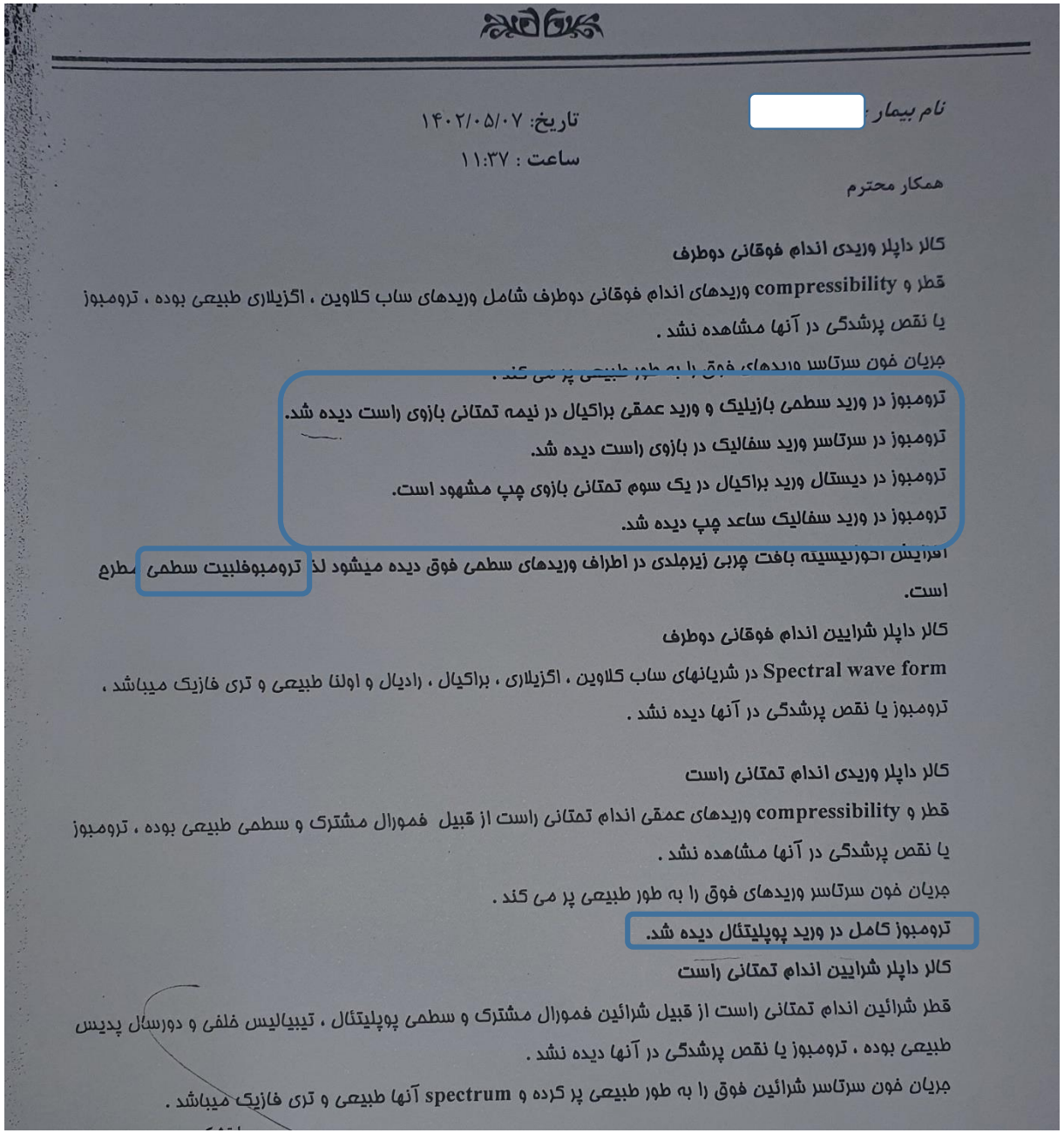
Test	Result	Unit	Method	Reference Interval
PTT MIX	25			

Analyzed by STAGO kit & Coagulometer.

Autoimmune Antibody

Test	Result	Unit	Method	Reference Interval
ANTI CARDIOLIPIN Ab(IgG)	0.1	MPLU/ML	CLIA	Negative :<10 Borderline :10-20 Positive :>20
ANTI CARDIOLIPIN Ab (IgM)	2.0	MPLU/ML	CLIA	Negative : <10 Positive :>=10
ANTI PHOSPHOLIPID IgG	0.8	U/mL	ELISA	Negative :< 12 Borderline : 12-18 Positive:> 18
ANTI PHOSPHOLIPID IgM(SCREENING)	0.3	U/mL	ELISA	Negative :< 12 Borderline : 12-18 Positive:> 18
ANTI BETTA-2 GLYCOPROTEIN(IgG)	0.1	AU/mI	CLIA	Negative :<10 Borderline:10-20 Positive :>20
LUPUS ANTI COAGULANT				
RUSSELL(DRVVT)	39.2	Sec	clotting	Direct : 31-47 After Mix :31-42
APTT-LA	42.4	Sec	coagulation	31-47
Interpretation : is Negative				

- 6 months after onset of Symptoms: (July 29,2023)



نام بیمار:

تاریخ: ۱۴۰۲/۰۵/۰۷

ساعت : ۱۱:۳۷

همکار محترم

کالر داپلر وریدی اندام فوقانی دوطرف

قطر و compressibility وریدهای اندام فوقانی دوطرف شامل وریدهای ساب کلاوین ، اگزیلاری طبیعی بوده ، ترومبوز یا نقص پرشدگی در آنها مشاهده نشد .

جریان خون سرتاسر وریدهای فوق را به طور طبیعی پر می کند .

ترومبوز در ورید سطحی بازیلیک و ورید عمقی براکیال در نیمه تحتانی بازوی راست دیده شد.

ترومبوز در سرتاسر ورید سفالیک در بازوی راست دیده شد.

ترومبوز در دیستال ورید براکیال در یک سوم تحتانی بازوی چپ مشهود است.

ترومبوز در ورید سفالیک ساعد چپ دیده شد.

افزایش اکوژنیسیته بافت چربی زیرجلدی در اطراف وریدهای سطحی فوق دیده میشود لذ ترومبوفلبیت سطحی مطرح است.

کالر داپلر شرایین اندام فوقانی دوطرف

Spectral wave form در شریانهای ساب کلاوین ، اگزیلاری ، براکیال ، رادیال و اولنا طبیعی و تری فازیک میباشد ، ترومبوز یا نقص پرشدگی در آنها دیده نشد .

کالر داپلر وریدی اندام تحتانی راست

قطر و compressibility وریدهای عمقی اندام تحتانی راست از قبیل فمورال مشترک و سطحی طبیعی بوده ، ترومبوز یا نقص پرشدگی در آنها مشاهده نشد .

جریان خون سرتاسر وریدهای فوق را به طور طبیعی پر می کند .

ترومبوز کامل در ورید پوپلیتئال دیده شد.

کالر داپلر شرایین اندام تحتانی راست

قطر شرائین اندام تحتانی راست از قبیل شرائین فمورال مشترک و سطحی پوپلیتئال ، تیبیالیس خلفی و دورسال پدیس طبیعی بوده ، ترومبوز یا نقص پرشدگی در آنها دیده نشد .

جریان خون سرتاسر شرائین فوق را به طور طبیعی پر کرده و spectrum آنها طبیعی و تری فازیک میباشد .

The Color Doppler US Was Revealed Superficial Thrombophlebitis in Both Upper Limbs And Complete DVT in RT Popliteal Vein

July 31,2023

تاریخ انجام: :

شماره آزمایش: 05 - 04722

Coagulation Assay

Test	Result	Unit	Normal Range
Anti Thrombin III	123	%	New born Infants up to 6 month: 60 - 90 Adults : 80 - 120

Emergency Hormone

Test	Result	Unit	Normal Range
Homocysteine	6.0	mic mol/L	5-15

Hormone

Test	Result	Unit	Normal Range
CA125	*84	U/ml	Up to 21
CA 19-9	240	U/ml	up to : 29

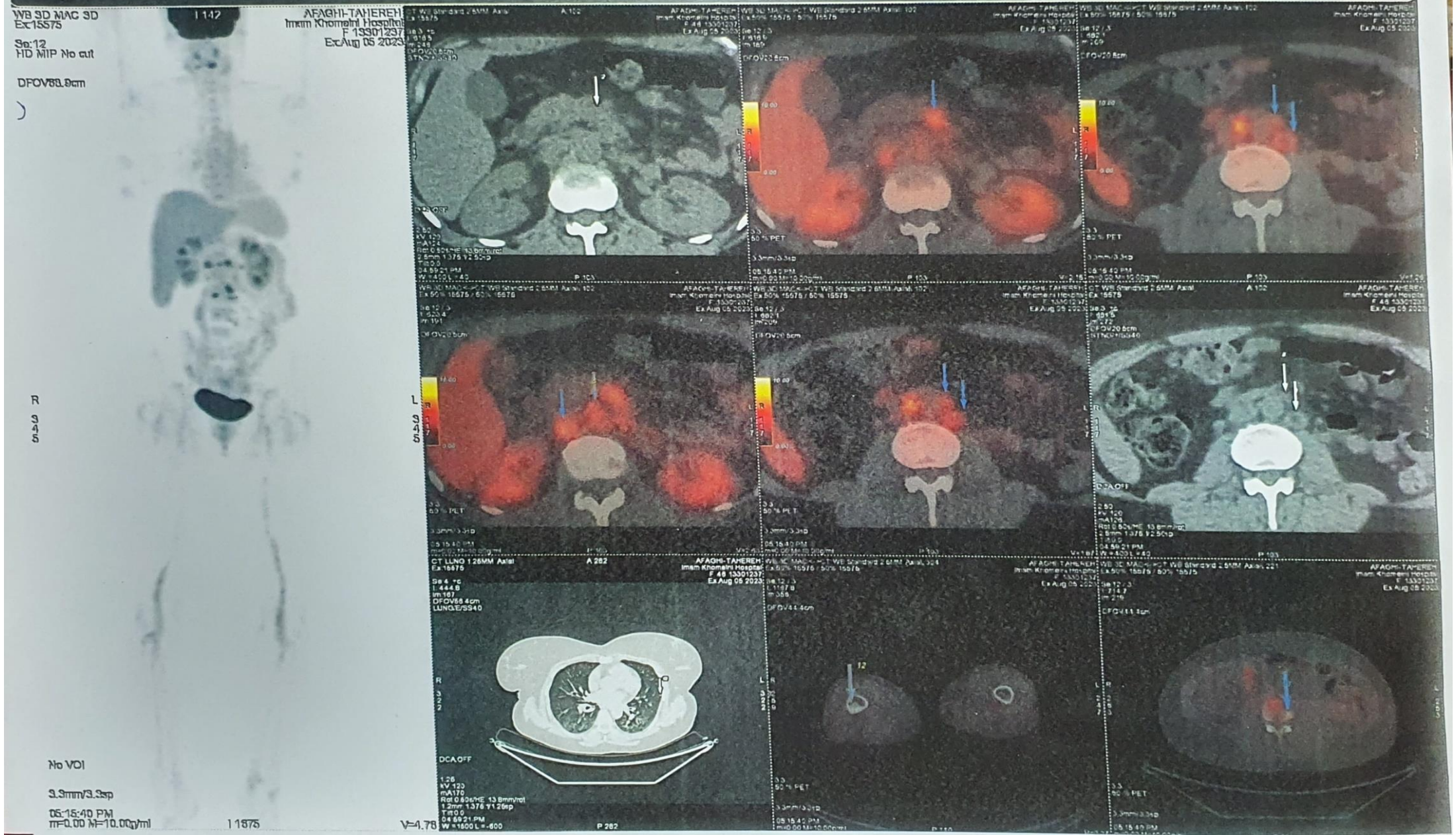
*** Technician:

Lab-Director

- The Treatment changed to Therapeutic LMWH.

- For More Evaluation A 18f FDG -PET/CT Scan Was performed

(5 August,2023):


WB 3D MAC 3D
Ex15575
Se:12
HD MIP No cut
DFOV68.8cm
No VOI
3.3mm/3.3sp
05:15:40 PM
m=0.00 M=10.00g/ml
11575
V=4.78
AFAGHI-TAHEREH
Imam Khomeini Hospital
F 13301237
Ex Aug 05 2023
CT LUNG 1.25MM Axial
A 262
DFOV56.4cm
LUNG/E/SS40
DCA OFF
P 282

مرکز پزشکی هسته ای
مجتمع بیمارستانی امام خمینی (ره)

TEHRAN UNIVERSITY OF MEDICAL SCIENCES

Imam Khomeini Hospital Complex - PET/CT Center

FDG-PET/CT Scan Report

Patient Name: Ms. Tahere Afaghi
Patient ID: 13301237
Age:46y
Height: 165cm
Date:1402.05.14
Weight: 72kg
Referring Physician: Dr. Touge

Technique:

Blood Sugar at Injection Time:65**mg/dl**
Injection Dose:7.1**mCi of ^{18}F-FDG**
Field of View:**Total Body**
Duration of Fasting: **6 hr**
Interval between injection and acquisition: **60min**
Acquisition: **3D HD**

Above mentioned dose was administered intravenously. To allow for distribution and uptake of radiotracer, the patient was allowed to rest quietly for 60 min in a shielded room. Imaging was performed on an integrated 16-slice PET/CT scanner. CT scanning was performed for attenuation correction and localization purposes. 3D emission scan was acquired. Images were reviewed in the transaxial, coronal, and sagital planes.

Diagnosis: DVT/PTE + Elevated 19-9
Indication: R/O Occult Malignancy

Findings:

Brain:

Physiologic FDG uptake is noted throughout the brain.

Head and Neck:

The nasopharynx, oropharynx and oral cavity appear normal. The larynxes, including true and false vocal cords are normal. The major salivary glands are intact. The thyroid gland appears normal.

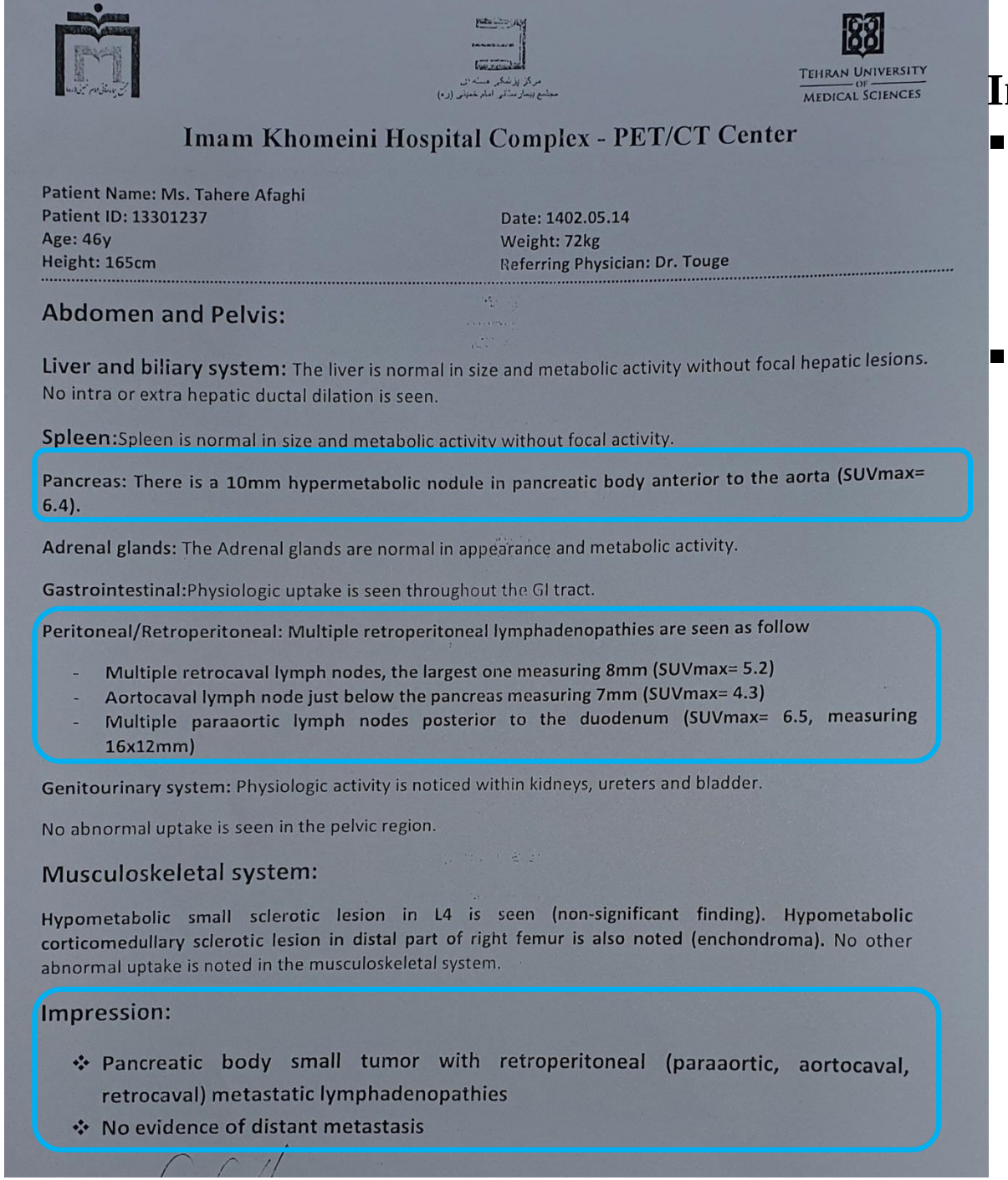
Thorax:

Lungs: Tiny granuloma is noted in the lingula without metabolic activity. No other remarkable structural finding or abnormal FDG uptake is noted in the lung fields and hila.

Mediastinum: Normal FDG uptake is noted within the myocardium and mediastinum without any pathologic adenopathy.

Chest wall: Soft tissue of chest wall is unremarkable with no abnormal focal FDG uptake.

Axillary: There is no pathologic adenopathy in the axillary regions, bilaterally.



مرکز پزشکی هسته ای
مجتمع بیمارستانی امام خمینی (ره)

TEHRAN UNIVERSITY OF MEDICAL SCIENCES

Imam Khomeini Hospital Complex - PET/CT Center

Patient Name: Ms. Tahere Afaghi
Patient ID: 13301237
Age: 46y
Height: 165cm

Date: 1402.05.14
Weight: 72kg
Referring Physician: Dr. Touge

Abdomen and Pelvis:

Liver and biliary system: The liver is normal in size and metabolic activity without focal hepatic lesions. No intra or extra hepatic ductal dilation is seen.

Spleen: Spleen is normal in size and metabolic activity without focal activity.

Pancreas: There is a 10mm hypermetabolic nodule in pancreatic body anterior to the aorta (SUVmax= 6.4).

Adrenal glands: The Adrenal glands are normal in appearance and metabolic activity.

Gastrointestinal: Physiologic uptake is seen throughout the GI tract.

Peritoneal/Retroperitoneal: Multiple retroperitoneal lymphadenopathies are seen as follow

- **Multiple retrocaval lymph nodes, the largest one measuring 8mm (SUVmax= 5.2)**
- **Aortocaval lymph node just below the pancreas measuring 7mm (SUVmax= 4.3)**
- **Multiple paraaortic lymph nodes posterior to the duodenum (SUVmax= 6.5, measuring 16x12mm)**

Genitourinary system: Physiologic activity is noticed within kidneys, ureters and bladder.

No abnormal uptake is seen in the pelvic region.

Musculoskeletal system:

Hypometabolic small sclerotic lesion in L4 is seen (non-significant finding). Hypometabolic corticomedullary sclerotic lesion in distal part of right femur is also noted (enchondroma). No other abnormal uptake is noted in the musculoskeletal system.

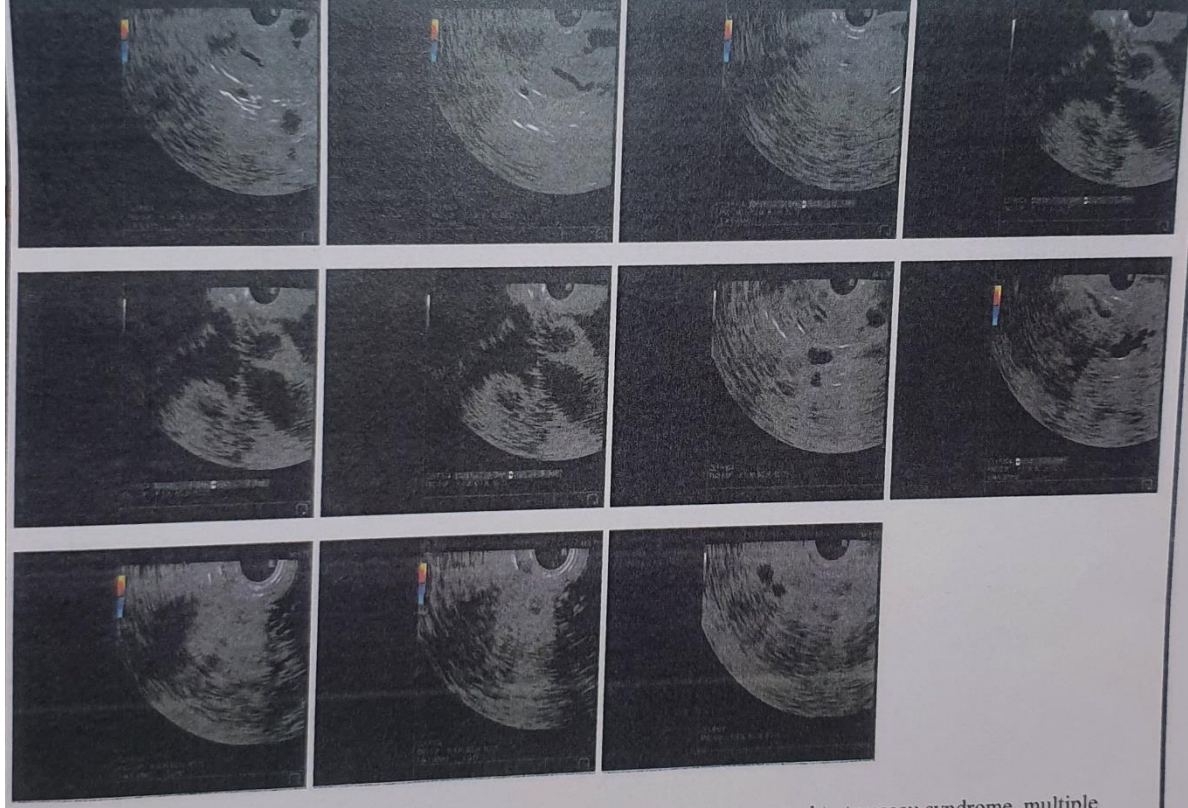
Impression:

- **Pancreatic body small tumor with retroperitoneal (paraaortic, aortocaval, retrocaval) metastatic lymphadenopathies**
- **No evidence of distant metastasis**

Impression:

- Pancreatic Body small tumor with retroperitoneal (paraaortic,aortocaval,retrocaval) metastatic LAPs
- No Evidence of distant metastasis

- The patient was Discussed in HepatoPancreatobiliary Tumor Board in 10th August 2023 and decision was made to perform EUS-FNB From Pancreatic Lesion or Paraaortic LAP(Posterior of D2).



Medical History : HX of recurrent thromboembolism of 4 limbs & PTE, suspected to trusseau syndrome, multiple peripancreatic & para-caval lymphnodes and one small lesion in body of pancreas in PET scan, suspected to malignancy. Ca9-19> 300

Indication : known case of Chronic Pancretitis.

Anesthesia : Midazolam, fentanyl

Description Of The Procedure : Procedure was performed with linear Olympus echoendoscope, blood oxygenation and pulse was monitored cotiniously during proceudure and EUS was performed with following finding.

Finding : There were multiple stranding without shadowing in pancreatic body parynchyma. PD was dialted entirly. The diameter of PD was measured 5.5 m in head and 4.5 mm in neck.& 3.7 mm in tail. PD was irregular and there was hyperechoic margin in MPD. Ampulla was normal. There was one aorta- caval lymph node about 10*9.3 and some perpancreatic lymph nodes about 10 mm, No obvious mass was found in pancreas.

Procedure : EUS + FNB performed from aorto-caval & one of the peri-pancreatic lymph nodes, Due to small lesion & site of lymph nodes only 1 pass from these lymph nodes were taken.

Final Diagnosis

Suspected to chronic pancreatitis (There was not all rosemont criteria)
Para-caval & peri-pancreatic lymph nodes

Recommendation : Follow pathology

وزارت بهداشت ، درمان و آموزش پزشکی دانشگاه علوم پزشکی تهران
مجتمع بیمارستانی امام خمینی (ره)
آزمایشگاه آسیب شناسی دکتر ضیاء شمسا
برگ گزارش پاتولوژی

PATHOLOGY REPORT SHEET

شماره پرونده: ۰۱ - ۴۷ - ۵۹ - ۱۰			شماره پاتولوژی: S-۰۲-۱۱۴۶	
پزشک معالج :		کد پذیرش: ۱۳۳۲۸۴۸۴	نام:	
بخش ارسالی: پاتولوژی کانسر				
تاریخ جوابدهی : ۱۴۰۲/۰۶/۰۴	تاریخ پذیرش : ۱۴۰۲/۰۵/۲۲	سن: ۴۶	جنسیت: زن	نام پدر:

Clinical Data:
A 46-year-old woman with recurrent thromboembolism, trousseau syndrome and suspected for a pancreatic lesion.
EUS: There was one aorto-caval lymph node about 10x9 mm and some peripancreatic lymph nodes about 10 mm.

Macroscopic Description:
The specimens are received in formalin in two containers as follows:
A) "Peri pancreatic lymph node", consists of multiple pieces of tan tissue totally measuring 0.5x0.5x0.1 cm. Submitted in toto in one block: A

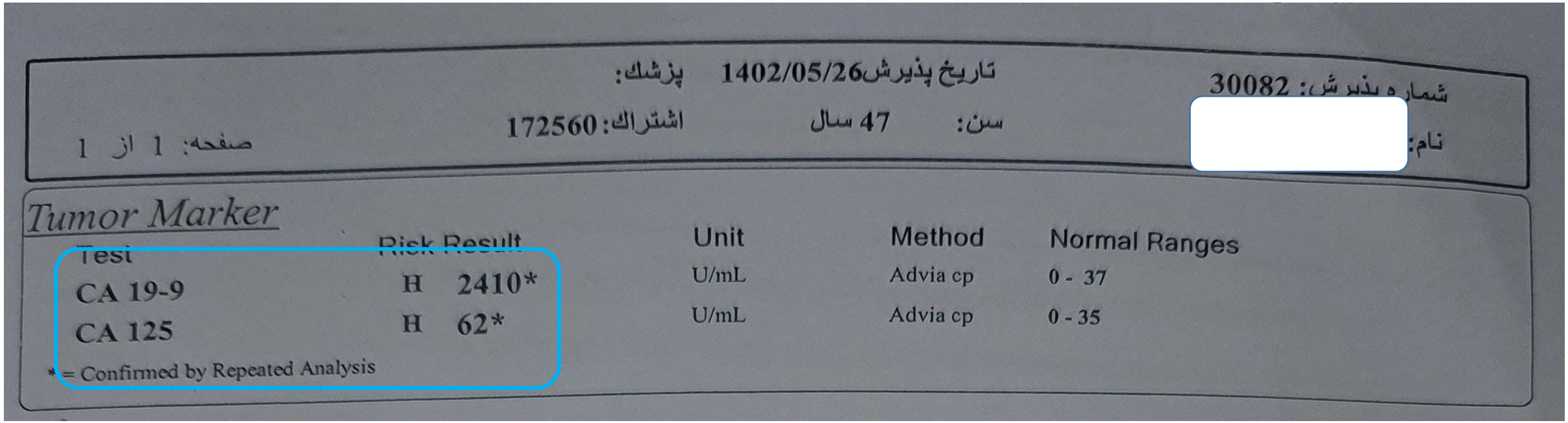
B) "Paracaval lymph nodes", consists of multiple pieces of tan tissue totally measuring 0.6x0.5x0.1 cm. Submitted in toto in one block: B

Microscopic Description:
A. Microscopic examination shows small fragment of lymphoid tissue, adipose tissue and foci of mature small lymphocytes aggreates in a bloody background.
B. Microscopic examination shows pieces of small intestinal mucosa and fibrotic tissue.

Diagnosis:
A) "Peri pancreatic lymph node",EUS FNB:
-Small pieces of lymphoid tissue
-No evidence of malignancy in this specimen

B) "Pericaval lymph node", EUS FNB:
-Small pieces of small intestinal mucosa and fibrotic tissue
-No lymphoid tissue is seen.

Comment:
If neoplastic lesion is suspected clinically, rebiopsy is recommended.



شماره پذیرش: 30082
نام:
تاریخ پذیرش 1402/05/26 پزشک:
سن: 47 سال اشتراک: 172560
صفحه: 1 از 1

Tumor Marker

Test	Risk Result		Unit	Method	Normal Ranges
CA 19-9	H	2410*	U/mL	Advia cp	0 - 37
CA 125	H	62*	U/mL	Advia cp	0 - 35

* = Confirmed by Repeated Analysis

17th August 2023

The Patient was Discussed in HPB Committee Again! In 31th August,2023 and planned to perform surgical biopsy by laparotomy.

Biochemistry

Test	Result	Unit	Normal Range
D-DIMER	692.3	ng/ml	Up to 800

Immunoassays-biological marker

Test	Result	Unit	Method	Normal Range
CEA (ECL)	4.8	ng/ml	ECL	Smoker < 10 Non smoker < 5
CA 19-9	H >1000	U/ml	CL	Up to 37 most important utility is in diagnosis and monitoring of pancreatic ca. Elevated level can be seen in healthy individual,bengin or ca. of other organs ; particulary hepatobilliary or G.I system.

H=High

The test(s) were performed by Cobas e411 instrument (fully automated,Electrochemiluminescence technology) & Roche kits (Germany). It provides superior analytical performance with high sensitive parallel to PCR3 & wide measuring ranges.

Coagulation

Test	Result	Unit	Normal Range
PT (Prothrombin Time)	14.0	Sec	
ISI of kit is 1.06 (high sensivity & standardization).Please attend to INR & PT activity result for better interpretation of the test.			
INR(International Normalized Ratio)	1	Ratio	Target values for therapeutic goal : 1.5 - 2 : DVT prophylaxis 2 - 3 : DVT, orthopedic surgery, TIA, sinus thrombosis,Acute MI,Arrhythmia,AF 2.5 - 3.5: Prosthestic valve, Antiphosphplipid Syndrome & recurent thromboembolism 3.0 - 4.0: Pulmonary embolism
P.T. Control Time	14.0	Sec	
PT Activity	100	%	>70% : normal expected >100: no pathological signficance
P.T.T.	40.0	Sec	Stago : 30-45 Fisher : 25-40
Comment:	stago		

PT & PTT tests are performed by STA Satellite Max instrument, which is a fully automated analyzer designed for hemostasis exploration, both chronometric & photometric analysis. Manufactured by STAGO Company, France, it has CE certification.

Biochemical -immunoassay

Test	Result	Unit	Method	Normal Range
IgG subclass 4	367	mg/L		39 - 864

2th September,2023

- Befor Going to surgery in 24th September,2023 A Abd.&P. CT Scan Was performed for PreOP. Evaluation:

سی تی اسکن اسپیرال ریه و مدیاستن بدون تزریق
بیمار خانم 47 ساله ایست با DVT های مکرر و آمبولی ریه با شک به تومور پانکراس که در CT و EUS ضایعه ای نداشته اما در PET ضایعه مشکوکی در پانکراس ایشان گزارش شده است و جهت بیوپسی باز از ضایعه ارجاع شده است.
یک گرانولوم کلسیفیه در لوب تحتانی راست و ندول کوچک ساب پلورال در لینگولای تحتانی و ندول مشابه دیگر در خلف RLL دیده می شود . فالواپ توصیه می شود.
کدورت فعال ریوی مشهود نیست.
قلب و عروق بزرگ نمای طبیعی دارند.
علائم آدنوپاتی و یا توده مدیاستن دیده نشد.
شواهدی از پلورال و پریکاردیال افیوژن دیده نشد.
جدار توراکس و استخوانها در حد طبیعی هستند.
پروتکل بررسی همانژیوم کبدی شامل سی تی اسکن اسپیرال
سی تی اسکن اسپیرال لگن با تزریق
بیمار خانم 47 ساله ایست با DVT های مکرر و آمبولی ریه با شک به تومور پانکراس که در CT و EUS
ضایعه ای نداشته اما در PET ضایعه مشکوکی در پانکراس ایشان گزارش شده است و جهت بیوپسی باز از
ضایعه ارجاع شده است
در مجاورت خلفی SMA دانسیته نسج نرمی ایزوانهانسینگ با حدود محو به دیامتر تقریبی 10-15mm دیده می شود که تماس نزدیک به 180 درجه با SMA داشته و شاخه اول ژژنال آن را encase کرده است و احتمالا ناشی از گسترش از توموری از زایده Uncinate پانکراس است حدود این ضایعه به علت ایزودنس بودن آن به خوبی مشخص نیست.
MPD کمی برجسته بوده دیامتر آن تا 3mm می رسد اما مجاری صفراوی دیلاته نیستند.
تنه ی سلیاک ، شریان هپاتیک مشترک ، SMV و پورت درگیر نمی باشند.
نکته ی قابل توجه یک لنفادنوپاتی نکروتیک و تومورال 26x20mm در خلف IVC در محاذات پدیکل عروقی کلیه راست می باشد که مطرح کننده ی درگیری لنفاوی دور دست است.
تعدادی لنف نود پاراائورتیک چپ ، آئورتوکاوال و رتروکاوال کوچکتر 12x7mm دیگر هم دیده می شود که
[illegible] آنها نسبتا بالاست
ندول هایپودنس 17x7mm و ندول 7mm دیگر در بازوی لترال ادرنال راست با نمای غیر اختصاصی دیده می شود . مقایسه با سی تی اسکن قبلی توصیه می شود در صورت جدید بودن احتمال اینکه متاستاتیک باشد بالاست.
دو ضایعه در لوب راست کبد دیده می شود: یکی به دیامتر 8mm با هایپرانهانس منت شریانی و حفظ کنتراست در تصاویر تاخیری در لترال سگمان 6 و دیگری به دیامتر 10mm در لترال بوردر خلفی سگمان 6 که انهانس منت ندولار و پر شدن تاخیری نشان می دهد که به نفع همانژیوم است. تغییرات خفیف چربی در کبد دیده می شود.
دو فیبروم ساب سروزال 47mm و 25mm در آدنکس چپ دیده می شود و سرویکس کمی برجسته است .
معاینه بالینی سرویکس توصیه می شود.
در سایر قسمت ها پاتولوژی قابل توجه مشهود نیست./س

وزارت بهداشت ، درمان و آموزش پزشکی دانشگاه علوم پزشکی تهران
مجتمع بیمارستانی امام خمینی (ره)

آزمایشگاه آسیب شناسی دکتر ضیاء شمسا
برگ گزارش پاتولوژی

PATHOLOGY REPORT SHEET

شماره پرونده: ۰۱ - ۴۷ - ۵۹ - ۱۰			شماره پاتولوژی: S-۰۲-۱۴۸۴۹	
پزشک معالج: البرزی - فروغ		کد پذیرش: ۱۳۴۵۶۸۶۸	نام: طاهره	نام خانوادگی: آفاقی
بخش ارسالی: بخش هپاتوبیلیاری و پیوند کبد				
تاریخ جوابدهی: ۱۴۰۲/۰۷/۱۲	تاریخ پذیرش: ۱۴۰۲/۰۷/۰۴	سن: ۴۷	جنسیت: زن	نام پدر: خداویردی

Clinical Data:

A 47-year-old woman with pancreatic mass
Endoscopy: There was a 35x24 mm hypoechoic mass in pancreas uninate process. The mass has encased distal part of SMA (Highly suspicious for pancreas borderline respectable adenocarcinoma.)

Macroscopic Description:

The specimen is received in formalin, labeled as "Pancreatic mass", consists of of mostly blood clot without grossly visible tissue fragment from which are cell block is prepared.

Microscopic Description:

Microscopic examination shows hypocellular specimen, mostly composed of necrotic materia with sfew atypical cells with pleomorphic nuclei, vesicular chromatin, distinct nucleoli and eosinophilic cytoplasm (partially obscured by necrosis). Nerve bundles and rare strips of bland-looking culumnar cells noted.

Diagnosis:

"Pancreatic mass", fine needle biopsy:
Positive for malignancy, in favor of adenocarcinoma
ICD O CODE: C 25 M-8140/3

2 Days later in 26th September,2023
FNB Was Done!

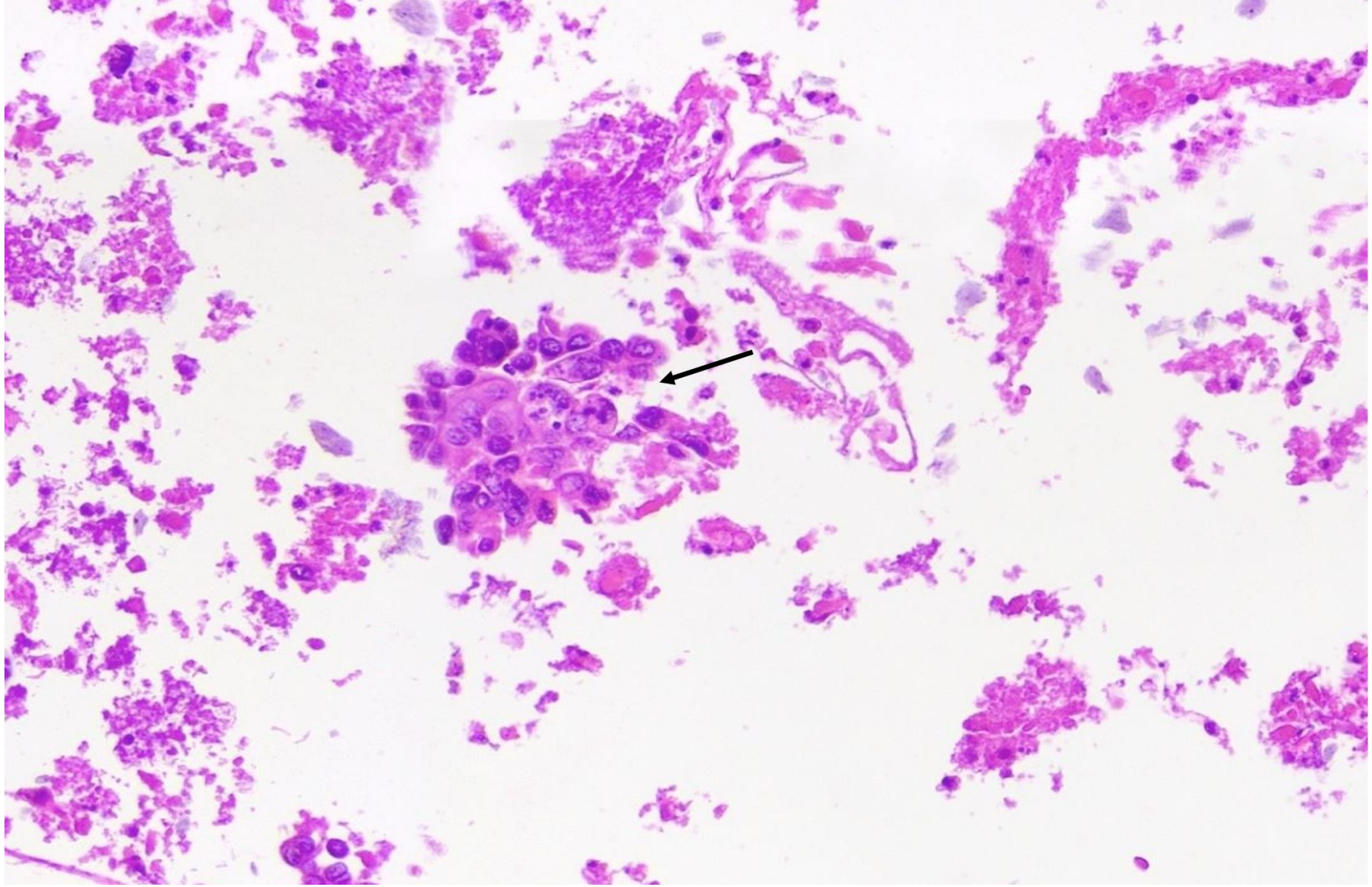


Image 3. Microscopic examination shows an epithelial cluster (arrow) composed of cells with pleomorphic nuclei, a coarse chromatin pattern, anisonucleosis, and eosinophilic cytoplasm.

- The Patient Diagnosed with Borderline Resectable PDAC!

Treatment Plan

- **Strategy:** Neoadjuvant chemotherapy due to borderline-resectable categorization.
- **Regimen:** 6 cycles of mFOLFIRINOX.

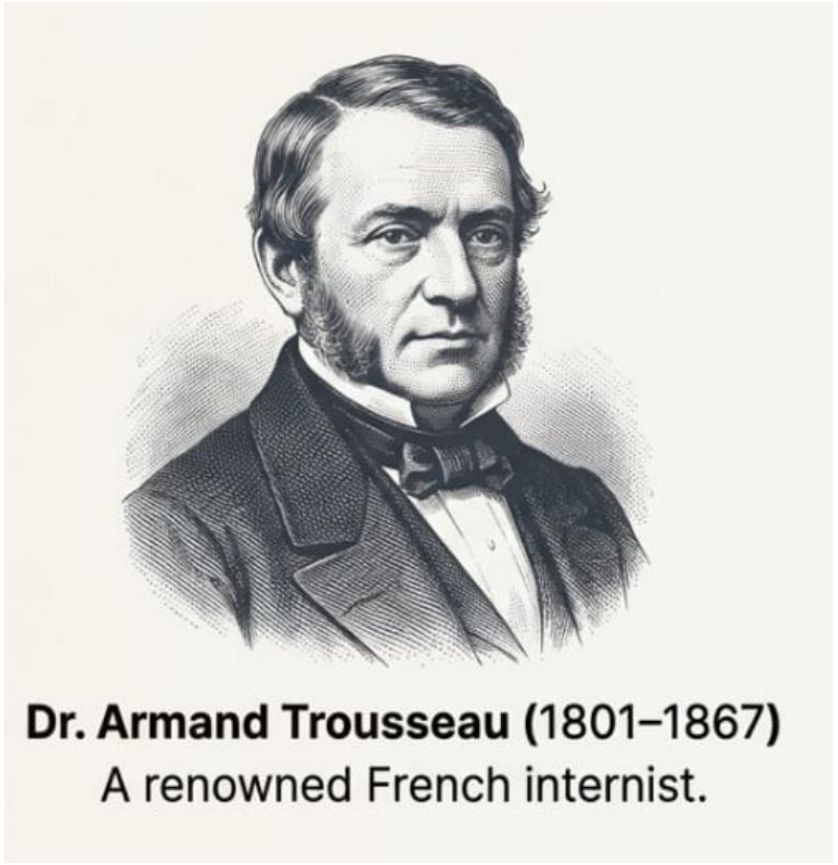
Outcome

- **Deterioration:** About 2 weeks after the 6th cycle, the patient's condition worsened due to the progression of her primary disease.
- **Passing:** The patient expired approximately one year after the diagnosis of Trousseau's syndrome and six months after the detection of pancreatic cancer.

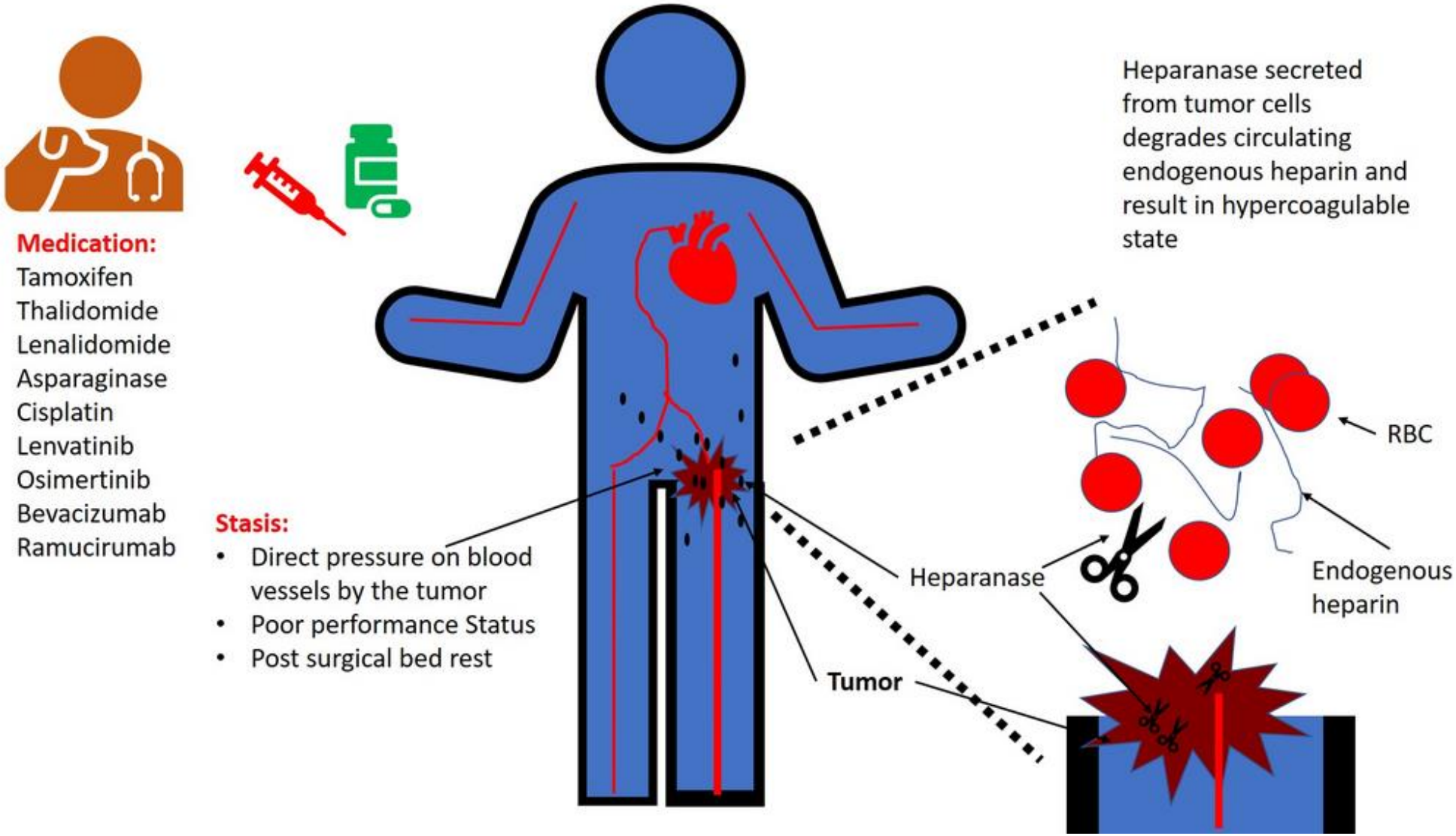
This case powerfully illustrates the prognostic significance of Trousseau's syndrome as a harbinger of aggressive occult malignancy.

- **Trousseau sign of malignancy**
-

  The **Trousseau sign of malignancy** or **Trousseau's syndrome** is a medical sign involving episodes of vessel inflammation due to blood clot (thrombophlebitis) which are recurrent or appearing in different locations over time (**thrombophlebitis migrans** or **migratory thrombophlebitis**).



Dr. Armand Trousseau (1801–1867)
A renowned French internist.


Medication:
Tamoxifen
Thalidomide
Lenalidomide
Asparaginase
Cisplatin
Lenvatinib
Osimertinib
Bevacizumab
Ramucirumab
Stasis:
• Direct pressure on blood vessels by the tumor
• Poor performance Status
• Post surgical bed rest
Heparanase secreted from tumor cells degrades circulating endogenous heparin and result in hypercoagulable state
RBC
Heparanase
Endogenous heparin
Tumor

Armand Trousseau (October 1801 – 23 June 1867) was a French internist

During his later years Trousseau developed gastric cancer. Coincidentally, he previously described Trousseau sign of malignancy and developed a similar finding in himself. This cancer limited his activities and eventually proved fatal.

- **Traditional vs. Extensive Screening Approaches**

The Screening Spectrum: Two Competing Philosophies

Limited Screening (The Standard Approach)

Components:

- Detailed history & physical examination
- Basic laboratory tests
- Chest radiography
- Age- and gender-appropriate cancer screening (e.g., mammography, colonoscopy)

Extensive Screening (The Investigative Approach)

Components:

- Includes all elements of limited screening.
- **PLUS:** Advanced imaging, such as abdominopelvic CT scans or FDG-PET/CT.

Key Finding from Cohort Analyses: Extensive screening detects more cancers initially but **does not significantly alter long-term mortality** compared to a limited screening strategy.

- A systematic review reported that within 12 months of a VTE diagnosis, the prevalence of occult cancer was around **5.2%**, but the benefit of extensive screening in improving patient-relevant outcomes remained **uncertain**.

- Clinical guidelines have reflected these findings, recommending that routine extensive cancer screening should not be universally applied in all unprovoked VTE patients, but rather should be tailored to **individual clinical findings and risk factors.**

• FDG-PET/CT as a Screening Tool

Prospective cohorts indicate that FDG-PET/CT has a high negative predictive value (NPV) for occult malignancy in unprovoked VTE, suggesting that a negative PET/CT can confidently exclude underlying cancer in many patients.

In one prospective series of patients ≥50 years with unprovoked VTE, PET/CT demonstrated an NPV of over **97%**, although the positive predictive value (PPV) remained low (around 22.6%) due to a higher rate of false-positive findings requiring additional diagnostic evaluation.

- While initial pilot studies showed that comprehensive FDG-PET/CT screening is feasible and may exclude malignancy effectively, they were limited by small sample sizes and high per-patient cost, underlining the need for larger trials to define cost-effectiveness and clinical impact.

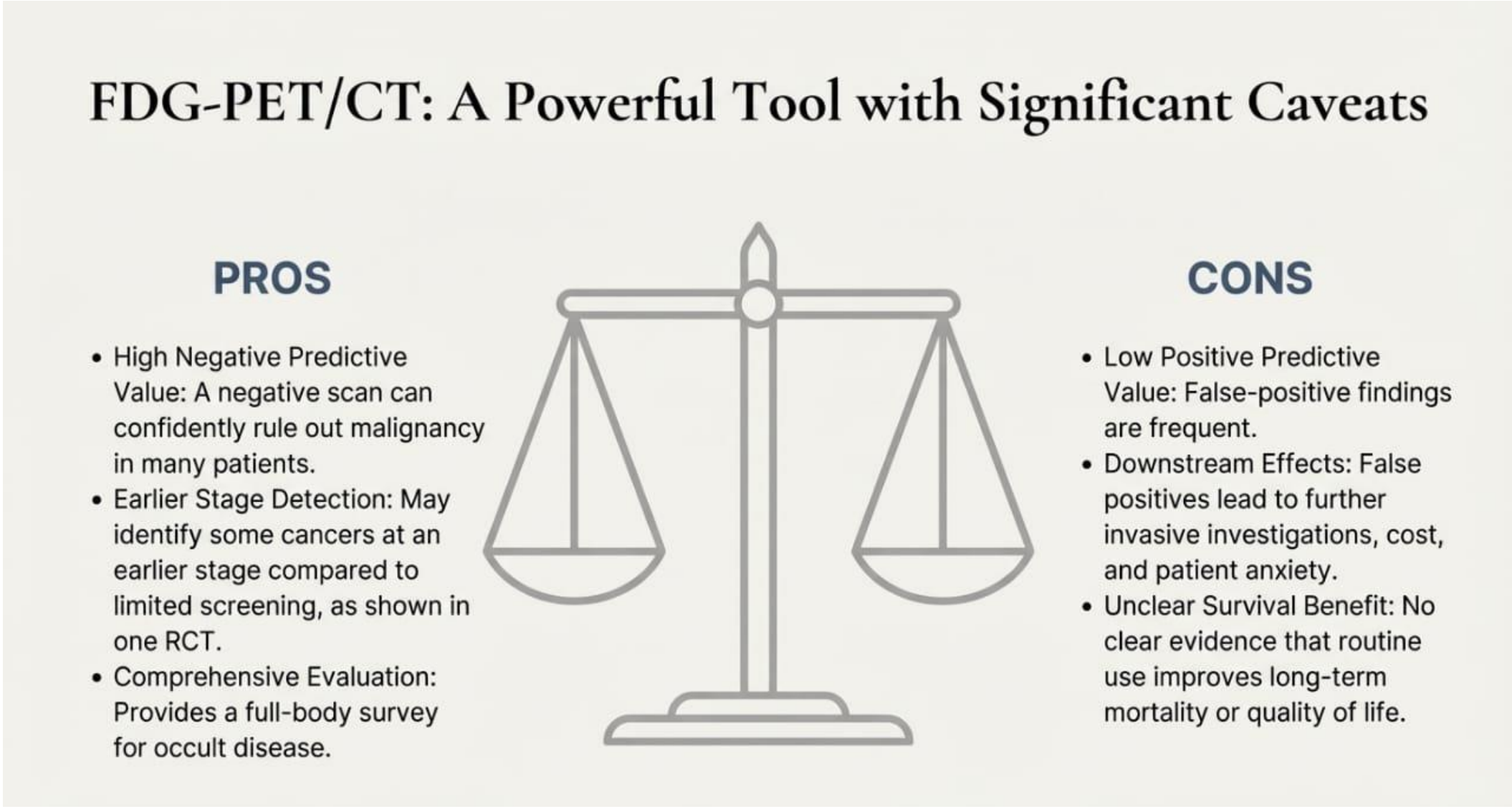
- **Although FDG-PET/CT holds promise as a more sensitive modality for occult tumor detection, the overall evidence to date suggests that:**

- 1. Occult malignancy is relatively uncommon in unprovoked VTE (≈5% prevalence at 12 months).

- 2. Extensive screening strategies (including PET/CT) may identify additional cancers earlier, but their impact on long-term mortality and quality of life remains unclear.

- 3. False-positive PET/CT findings are frequent and can lead to further invasive investigations, increasing cost and patient anxiety without clear survival benefit.

- Guidelines increasingly **advocate for a risk-based, clinically directed approach** to cancer screening in VTE, prioritizing symptomatology, age, and individual risk stratification over blanket imaging protocols.



- Some Available scores:

- RIETE score: age >70, male sex, anemia, thrombocytosis, chronic lung disease

- SOME score: age ≥60, smoking, prior provoked VTELimitations: modest discrimination, poor external validation

- Guidelines: Do not recommend risk-score–guided extensive screening

- Practice: **history, exam, basic labs, chest imaging, age-appropriate screening**

The Case Poses a Fundamental Clinical Question

Our investigation ultimately required an FDG-PET/CT to uncover the diagnosis. This leads to a critical question for clinical practice:

In a patient with unprovoked Venous Thromboembolism, how extensively should we screen for an occult malignancy?

THANKS