



# EHA-GBMTA- AHA Hematology Tutorial

Clinical Case – **Session 1:**  
**Indolent Non-Hodgkin  
Lymphoma**

18.10.2024

Kurtsadze Mariami



# Patient History

52-years-old man with clinical symptoms during last 8 months

## Complaints      Anamnesis:

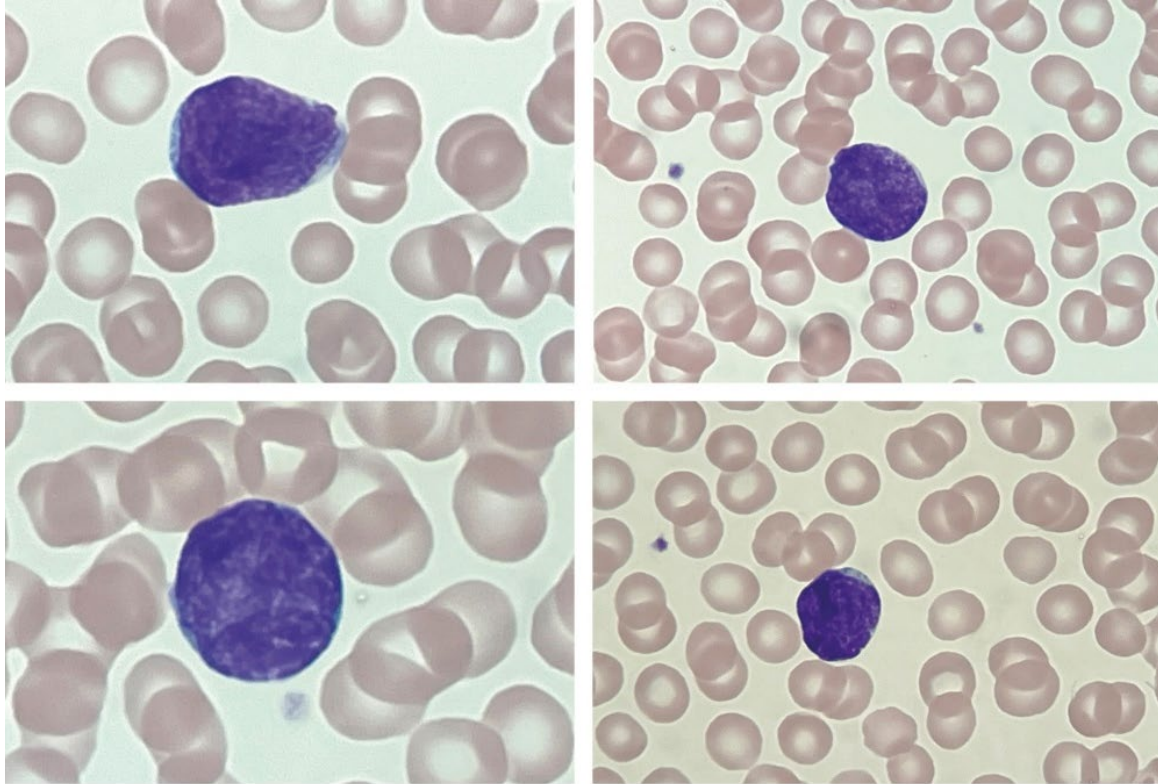


- Fullness below the left subcostal area
- Weight loss – 27 kg
- Excessive sweating during physical activity
- Pain in upper arm



- Was diagnosed with bursitis, takes NSAID.
- On gastroscopy - duodenal erosion
- Abdominal CT scan – 2022. – thickened oedematous duodenal wall with inflammation. Lymphadenopathy and lymph node enlargement - size between 0.5-2.0 cm, spleen-N
- Anti-HBc total positive – 2.94 IU

# Findings-Blood film and count



**Peripheral blood smear.** Image shows infiltration with mature lymphocyte  
Giemsa stain

test	Result	Normal ranges
WBC	14.46 x10 <sup>9</sup> /l	4.0-11.0
RBC	4.09 x10 <sup>12</sup>	4.3-5.9
Hb	119 g/l	14.0-17.5
Hct	0.36 l/l	0.40-0.52
Platelets	84.0 x10 <sup>9</sup> /l	150-400
Lymph	10.55 x10 <sup>9</sup> /l	1.5-4.0

13.05.2023

# Findings-CT scan

CT scan 10/03/2023

- paratracheal, retrocaval, subcarinal, aortopulmonary, axillary, cervical lymphadenopathy/lymph node enlargement.
- splenomegaly 16.7x21.9x23.2cm
- paraaortic conglomerates – size ranges between 1.6-3.1 cm,
- infiltration of the omentum.



# Findings-CT scan

CT scan 10/03/2023

- paratracheal, retrocaval, subcarinal, aortopulmonary, axillary, cervical lymphadenopathy/lymph node enlargement.
- splenomegaly 16.7x21.9x23.2cm
- paraaortic conglomerates – size ranges between 1.6 - 3.1 cm
- infiltration of the omentum



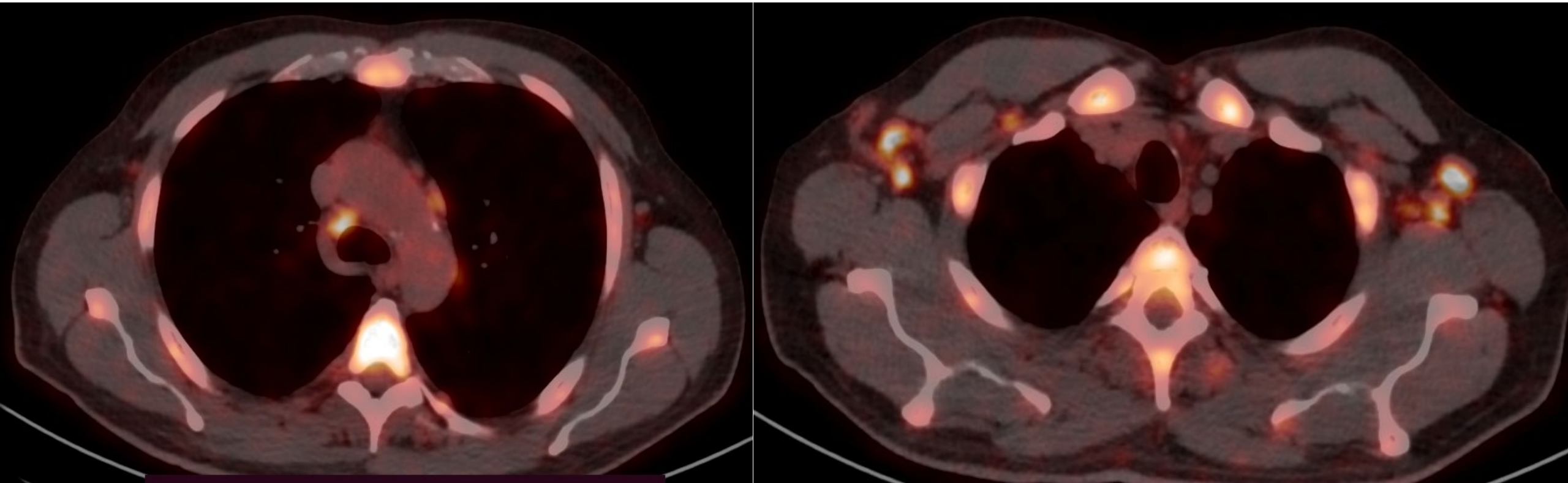
# Findings-PET CT

PET-CT scan 05/05/2023

- PET-CT- increased metabolic activity in the liver, pelvic bone, lumbar spine.



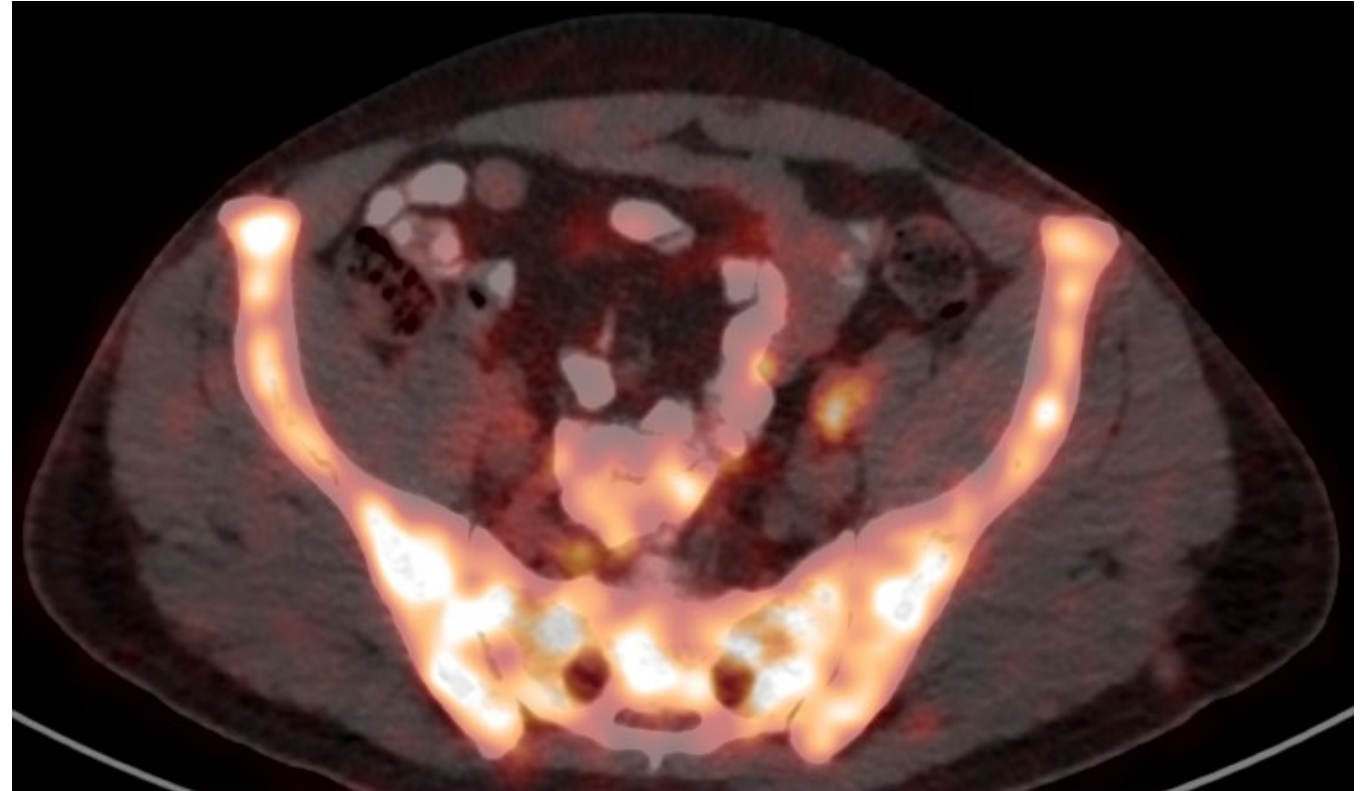
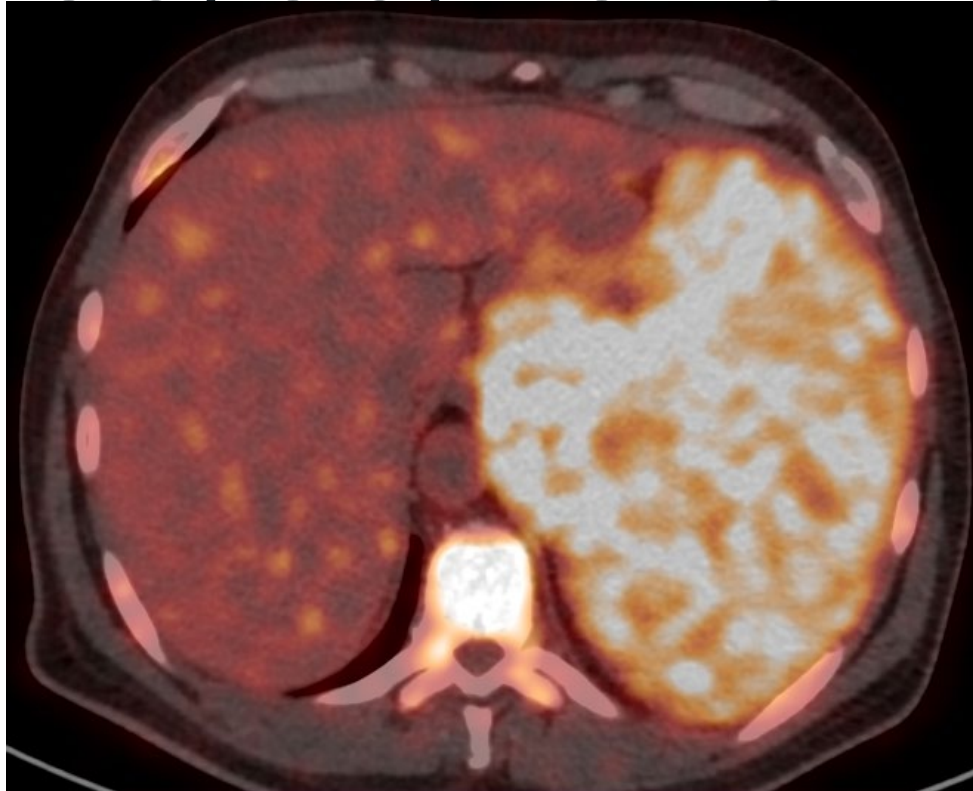
# Findings-PET CT 05/05/2023



- PET-CT-increased metabolic activity paratracheal, retrocaval, subcarinal, aortopulmonary, axillary lymph nodes

# Findings-PET CT

05/05/2023



- PET-CT-increased metabolic activity in the liver and spleen, vertebrae and pelvic bones.



# Findings - Bone marrow trephine biopsy: Axillary lymph node dissection

## Bone marrow trephine biopsy:

- FAT TISSUE: <5%
- CELLULARITY: Hypercellular
- ERYTHROID SERIES/GRANULOCYtic SERIES/ MEGAKARYOCYtic SERIES: Decreased due to infiltration
- **Neoplastic infiltration composed of small lymphocytes is observed**

## Axillary lymph node dissection:

- Neoplastic lymphoid infiltration is observed, consisting of cells with large, pleomorphic nuclei, fine chromatin, irregular nuclear contours and relatively wide cytoplasm with discernible nucleoli in some places.
- Immunohistochemical examinations: CD20 and BCL2 (+), CD10 and BCL6 focal (+), CD3, CD5 and BCL1 (-)
- Ki-67 proliferation index around 30-40%

**Biochemistry:** LDH-500 U/L,  $\beta$ 2-microglobulin- <2.5 mg/l

# Diagnosis

- **Follicular Lymphoma grade 1-2**
- **CD20, CD10, BCL2 positive**
- **Stage IVB**

# Management

- 6 courses of R-CHOP

Day	Drug	Dose-BSA-2.12	Route
0	Rituximab	750 mg.	IV infusion
1	Doxorubicin	100 mg.	IV bolus
1	Vincristine	2 mg.	IV infusion
1	Cyclophosphamide	1500 mg.	IV bolus
1-5	Prednisolone	100 mg.	PO

- Allopurinol 300 mg once a day, PPI inhibitor, antiviral and antifungal prophylaxis, antiemetics were included for supportive care.
- Antiviral prophylaxis – tenofovir 245 mg/day for 1 year

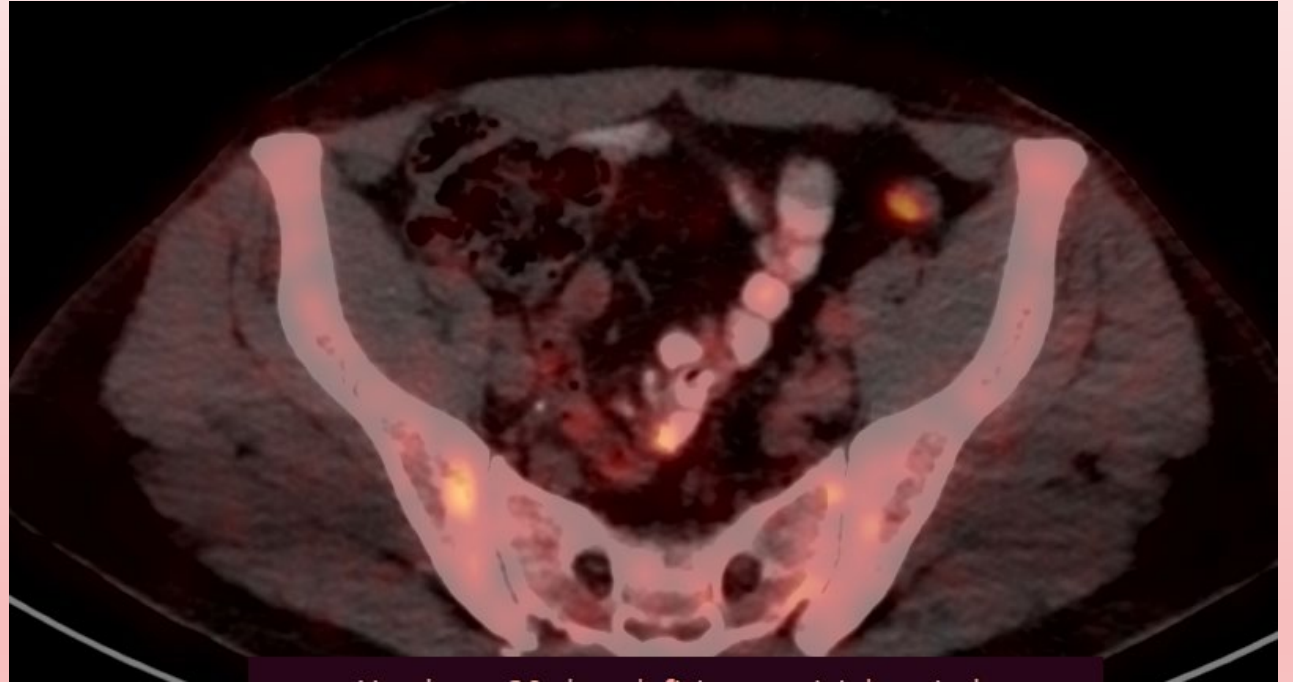
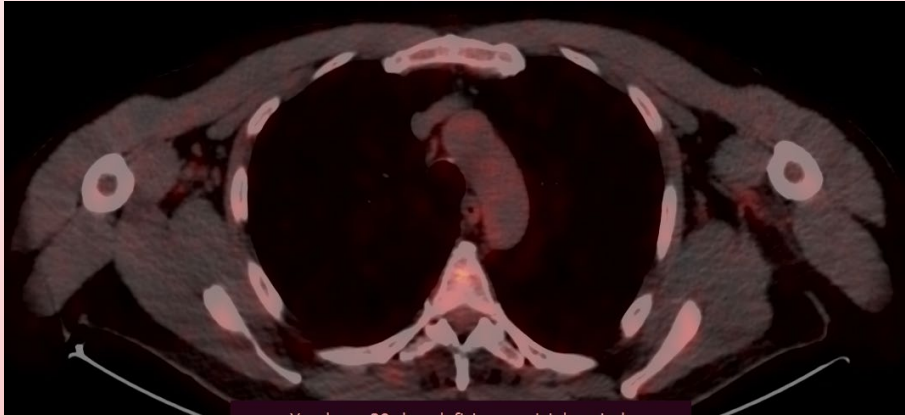
# Response to treatment-PET-CT scan 01/08/23

PET-CT scan after 3 cycles

- Mediastinum - ametabolic lymph nodes, reduced in size.
- Lymph nodes with active metabolism were not detected in the abdomen or retroperitoneum
- Bone metabolic activity is decreased totally, SUVmax=3.4-iliac bone, SUVmax=3.2-L3 vertebra.
- Liver with focal increase activity, SUVmax-3.2.
- Spleen - without metabolic activity, splenomegaly remains.



# Response to treatment-PET-CT scan 01/08/23



# Response to treatment

- The PET-CT scan was negative, lymphadenopathy
- Plasma LDH and  $\beta$ 2-microglobulin level were within the normal range
- 18.07.2024 CT scan spleen- 6.3x11.1x12.6cm.
- Patient continues maintenance therapy with rituximab every 2 months, took cycle 5 since.

test	Result			Units
	13.05. 2023	12.07. 2023	02.04 2024	
WBC	14.46	4.84	10.80	$\times 10^9/l$
RBC	4.09	4.10	5.28	$\times 10^{12}$
Hb	119	123	162	g/l
Hct	0.36	0.368	0.467	l/l
Platelets	84	152	178	$\times 10^9/l$
Lymphocytes	73.0	55.2	31.0	%

# Response to treatment

test	Result			Units
	13.05.2023	12.07.2023	02.04.2024	
WBC	14.46	4.84	10.80	$\times 10^9/l$
RBC	4.09	4.10	5.28	$\times 10^{12}$
Hb	119	123	162	g/l
Hct	0.361	0.368	0.467	l/l
Platelets	84	152	178	$\times 10^9/l$
Lymphocytes	73.0	55.2	31.0	%

Spleen Size on CT scan	
09.03.2023	19.07.2027
11.6 x21.9x14.3cm	6.3x11.1x12.6cm

# Follow-up

- PET-CT scan every 1 year first 2 year;
- Biochemistry – LDH,  $\beta$ 2-macroglobulin;
- Anti-HBc total monitoring;
- Maintenance therapy up to 2 years with **rituximab every 2 months** – cycle 5 is since done;
- Last visit-September 2024, remains in remission;



# Discussion

- What was the differential diagnosis?
- What will be the choice of treatment in case of relapse?
- What is the impact of Anti-HBc positivity on the development and prognosis of follicular lymphoma?