

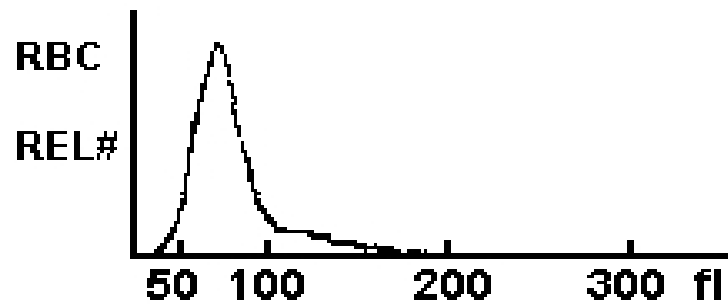
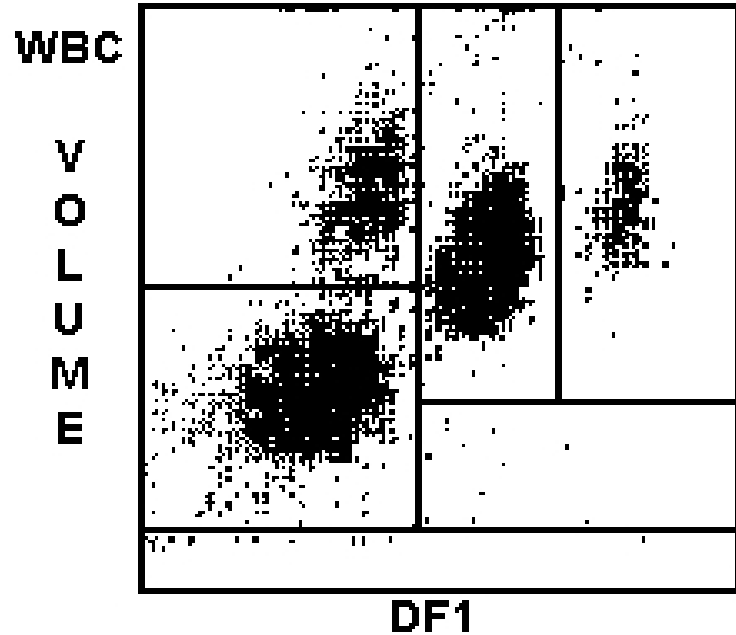
SGDs of red cells

Dr saima irum

Assistant professor of pathology

Number 1

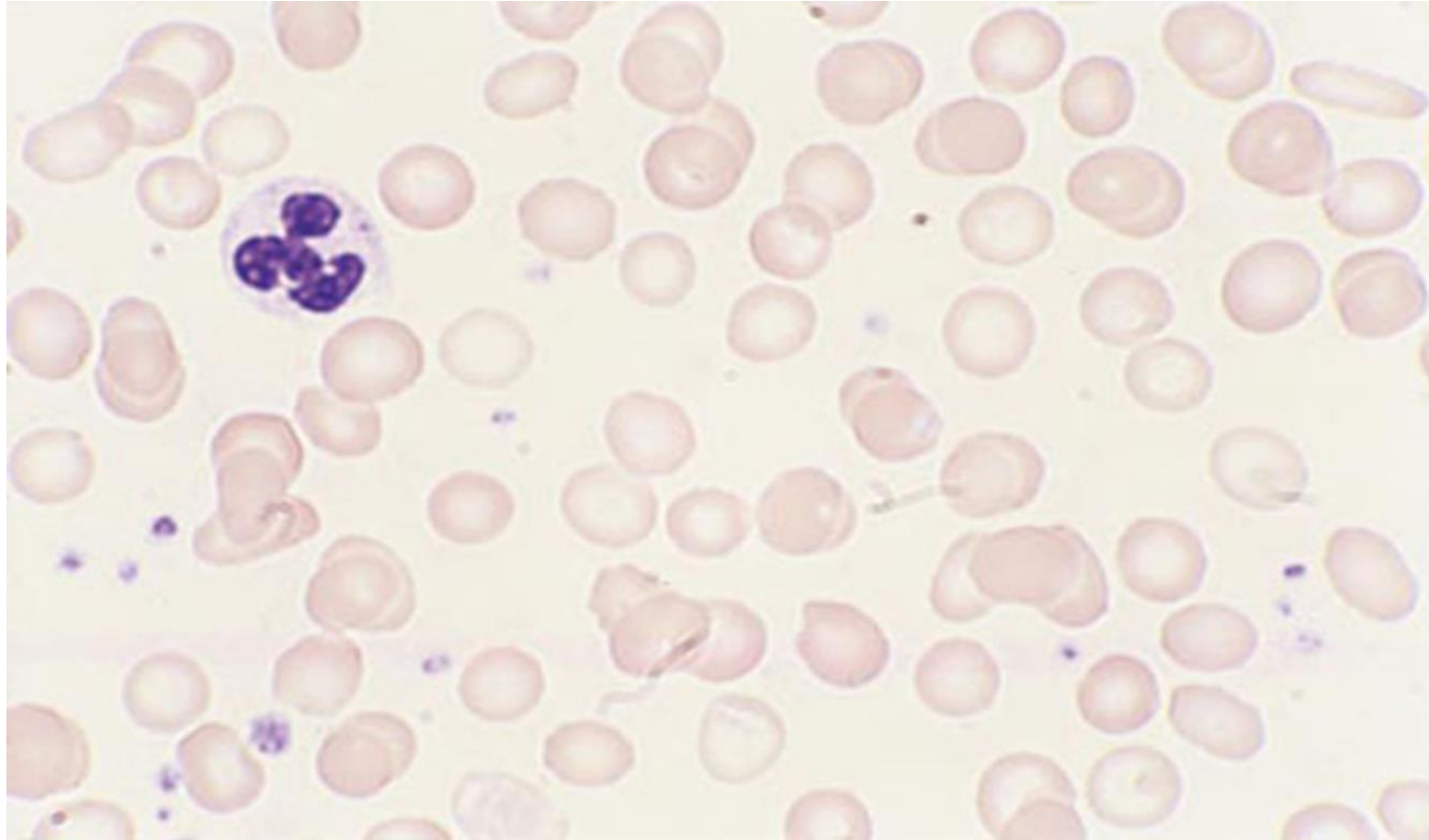
CBC report of a 17 years male with fatigue and sortness of breath on exertion

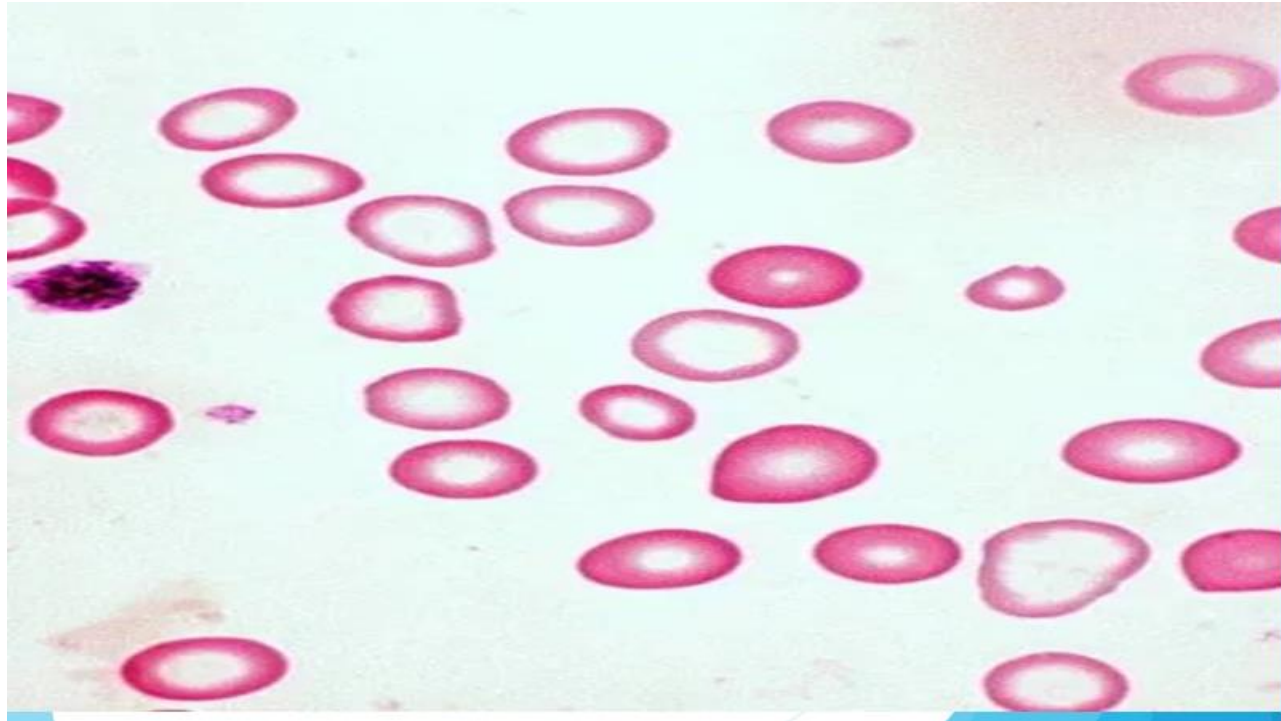


WBC	5.5	
	%	#
NE	54.7	3.0
LY	34.1	1.9
MO	7.5	0.4
EO	3.0	0.2
BA	0.7	0.0
RBC	4.28	L
HGB	9.7	L
HCT	29.9	L
MCV	69.7	L
MCH	22.6	L
MCHC	32.4	L
RDW	18.4	H
PLT	331	
MPV	8.8	

- Q1 what is differential diagnosis?
- Q2 which further tests you will advise?

Peripheral smear of this patient is

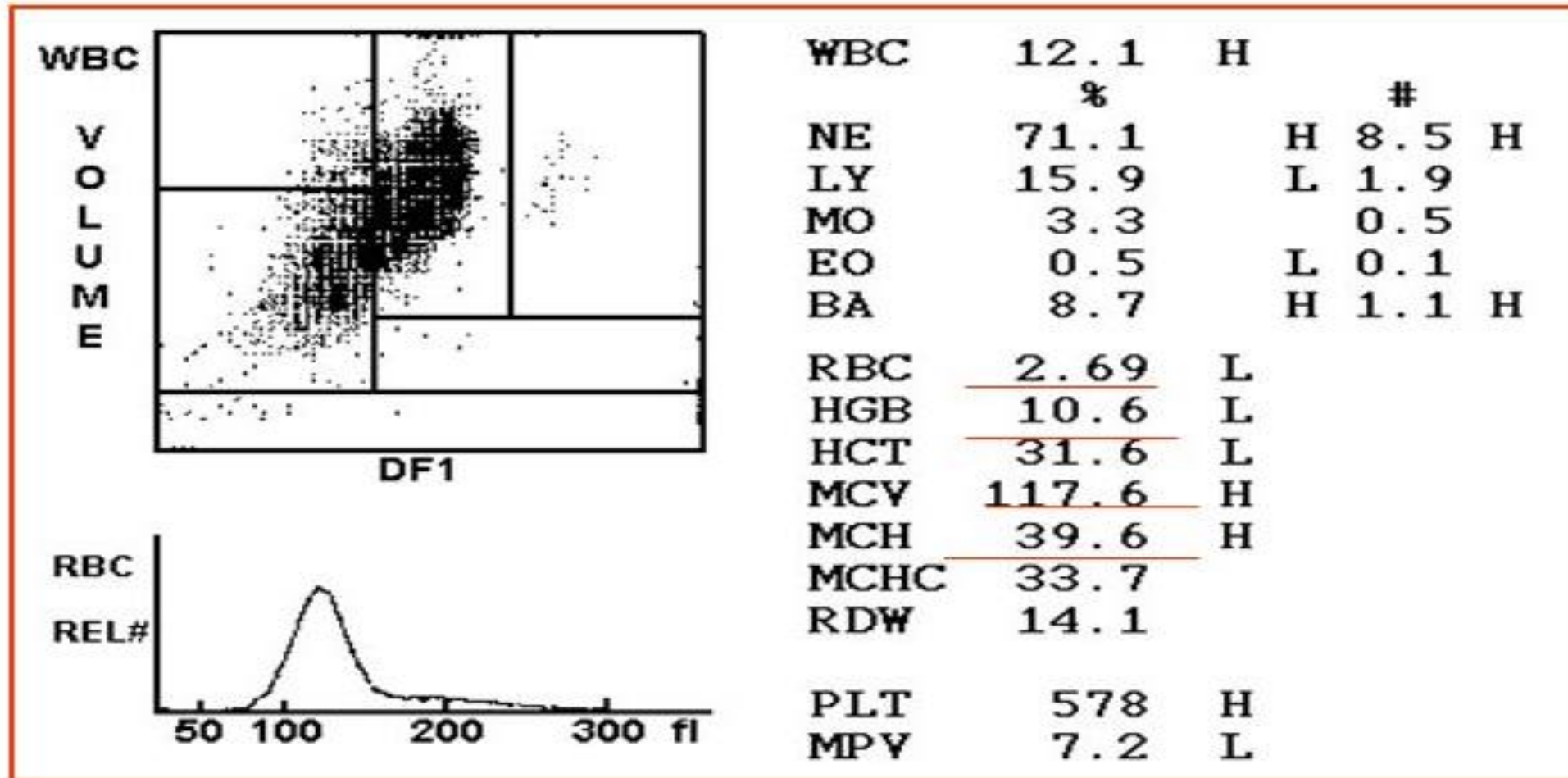




- Now what is your diagnosis?
- What will you ask in history?
- What are causes of this type of anemia?

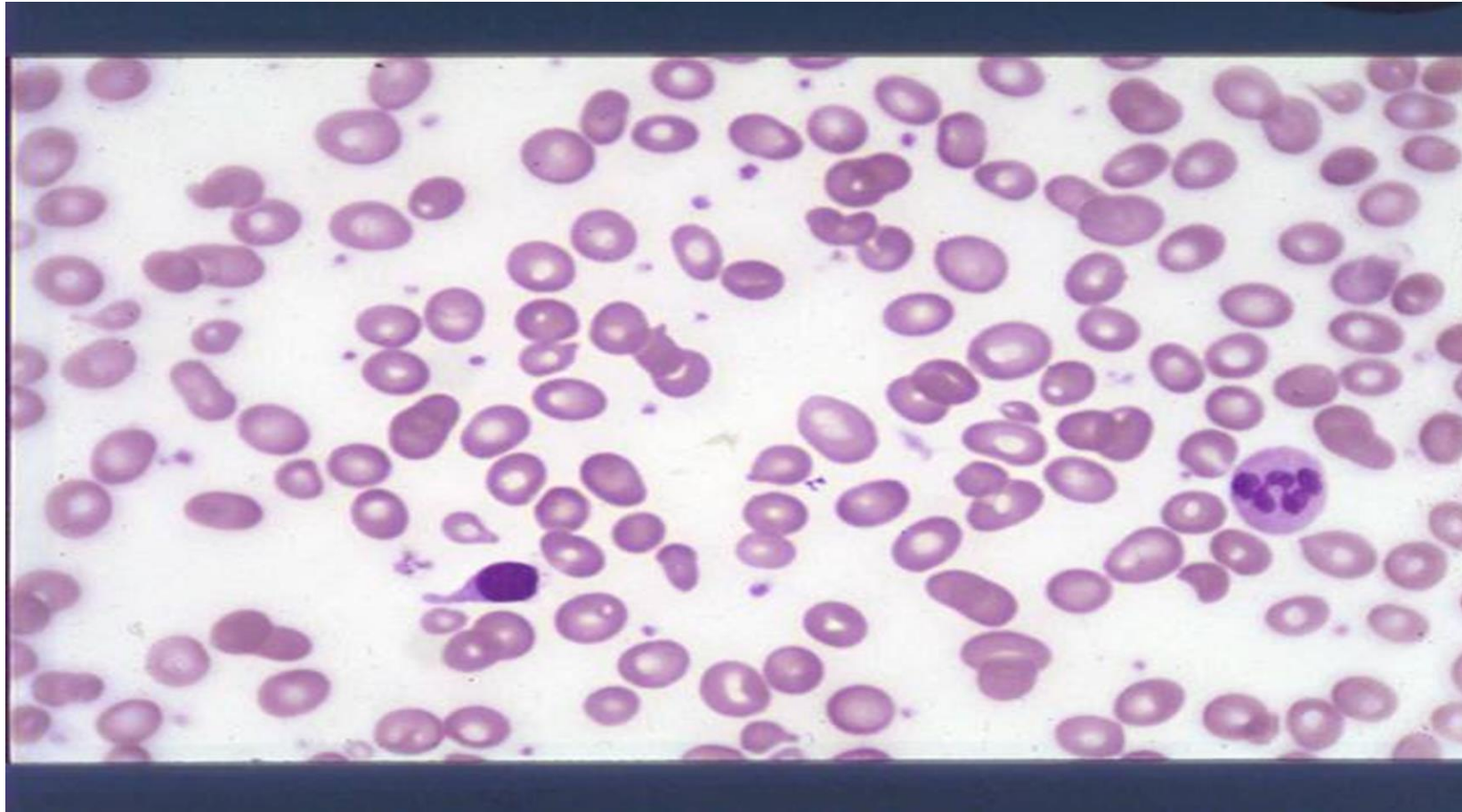
Number 2

This is CBC report of 60 years old female with symptoms of anemia



- Q1 what is differential diagnosis?
- Q2 what further tests you will advise?

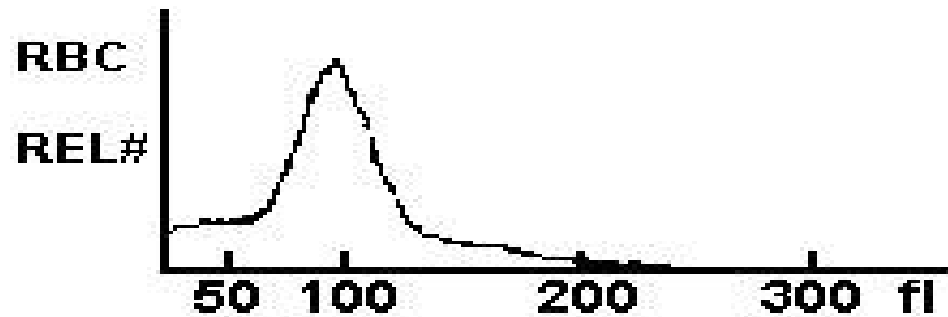
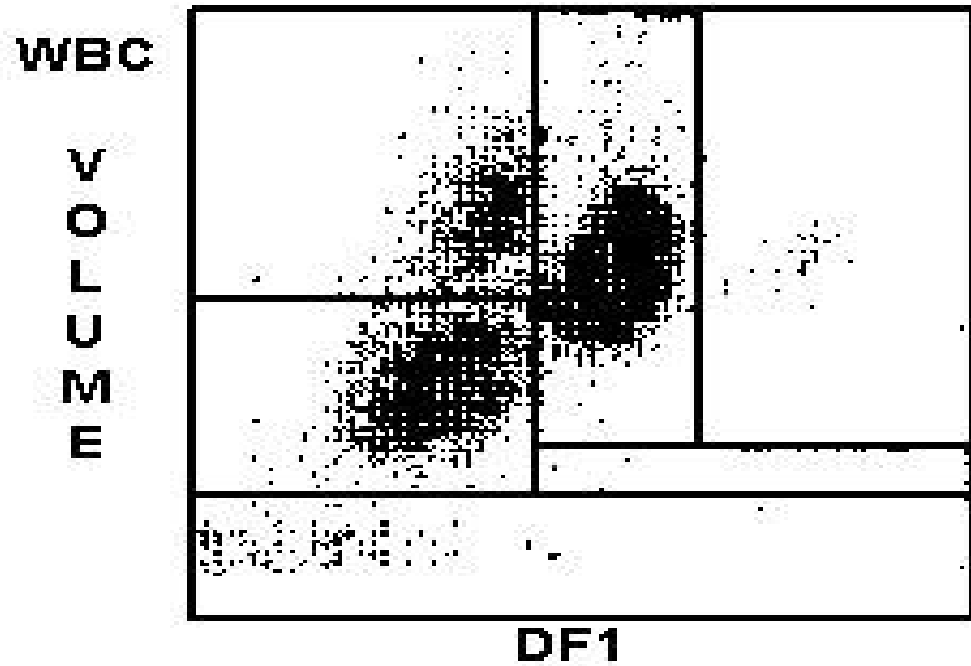
This is peripheral smear of patient



- Now what is final diagnosis?
- What are causes?
- What are clinical features?
- Iron is absorbed in which part of intestine?
- vitamin B12 is absorbed in which part of intestine?
- Folic acid is absorbed in which part of intestine?
- Name 2 anti folate drugs

Number 3

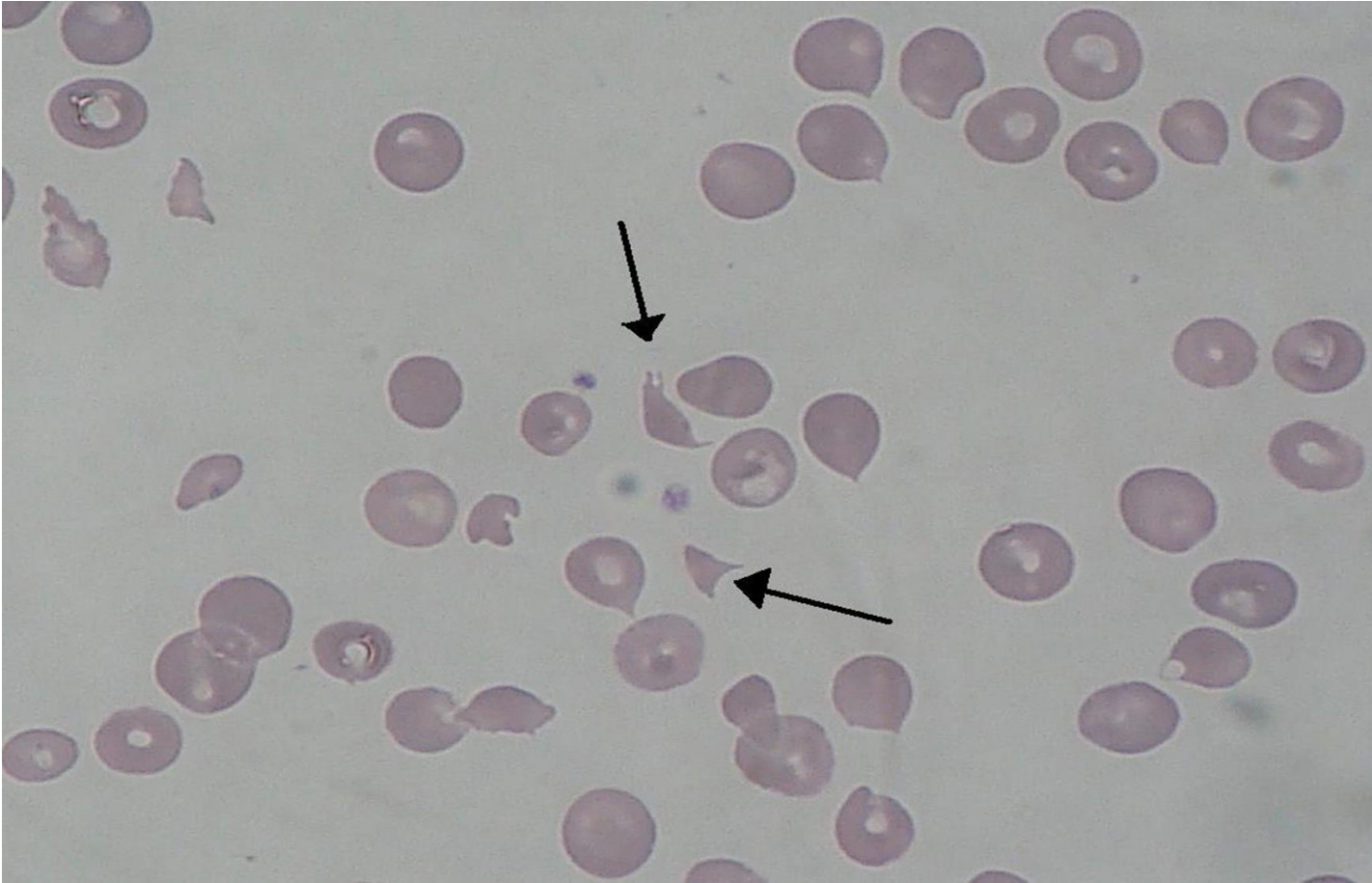
This is CBC of patient 35 years old patient in DIC



WBC	9.9	H	
	%		#
NE	73.9	H	7.4
LY	15.8	L	1.6
MO	8.4		0.8
EO	0.5	L	0.0
BA	1.4		0.1
RBC	3.81	L	
HGB	11.1	L	
HCT	33.3	L	
MCV	87.3		
MCH	29.2		
MCHC	33.4		
RDW	22.7	RH	
PLT	354		
MPV	10.9	RH	

- What type of anemia is it?
- What further tests you will advise?

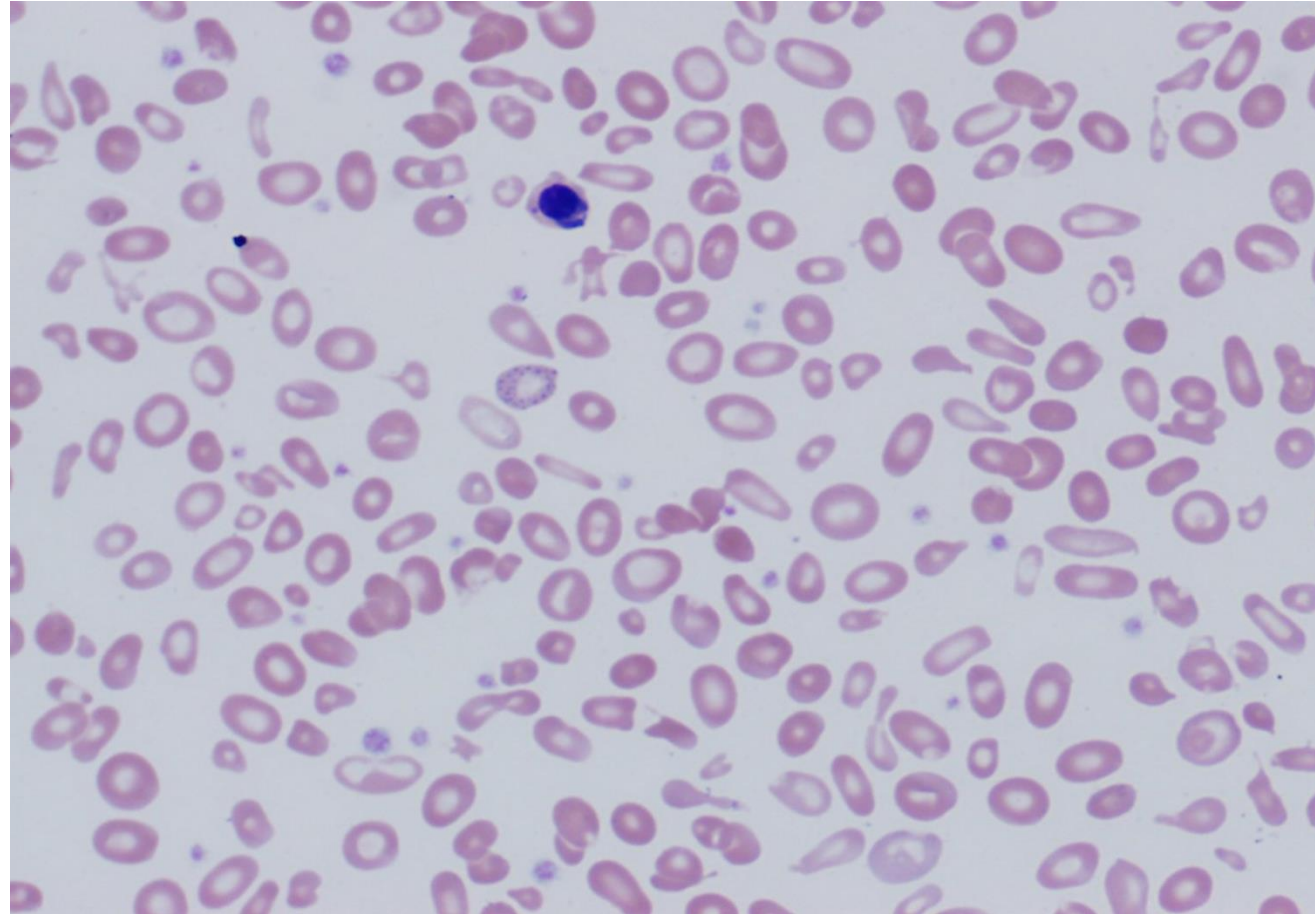
This is patients peripheral smear



- Cells pointed with arrows are called what?
- Classify hemolytic anemias

Number 4

This is peripheral smear of 2 years old male with history of anemia



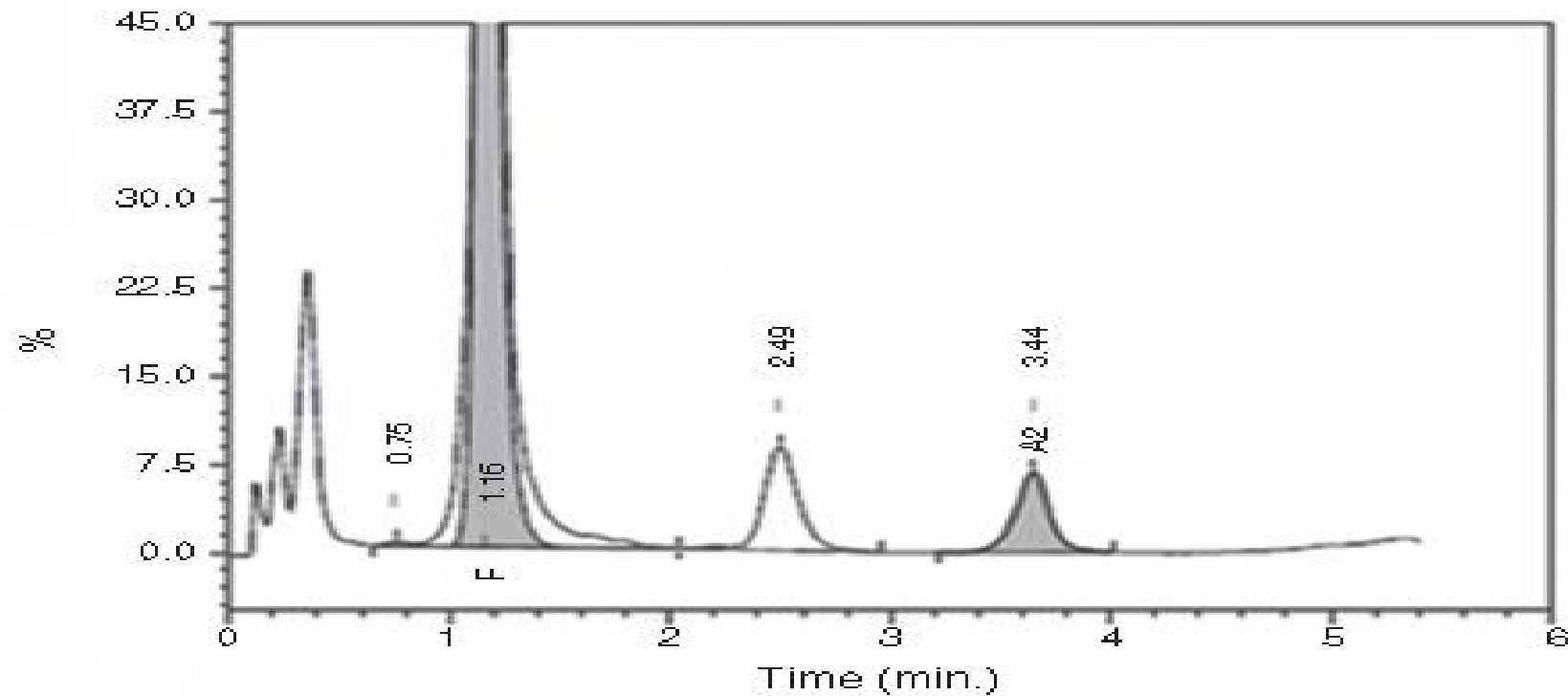
- What is differential diagnosis?
- What further tests are advised?

His iron profile is normal and Hb electrophoresis is as under

F Concentration = 84.6* %
A2 Concentration = 6.9* %

*Values outside of expected ranges

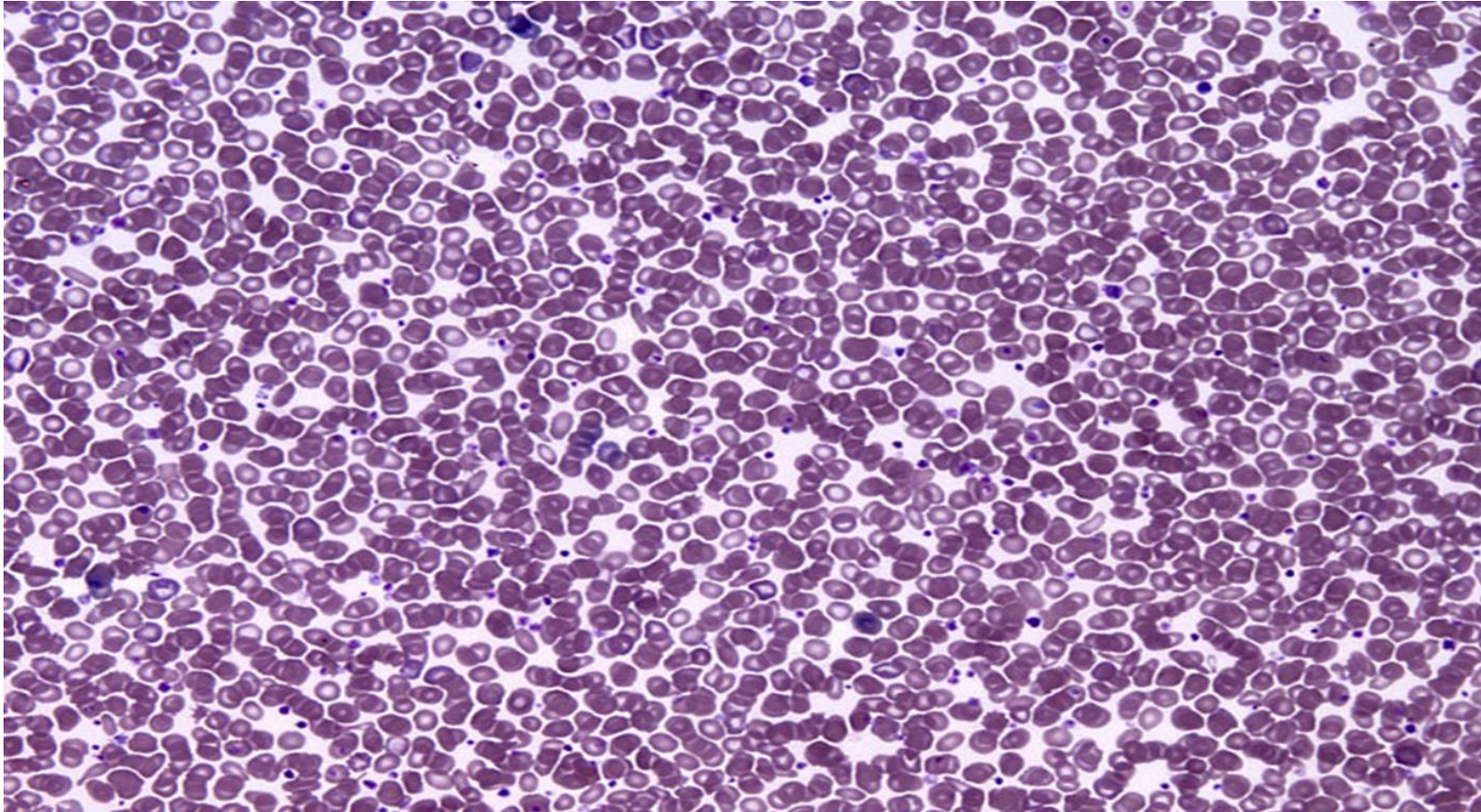
Analysis comments:



- What is final diagnosis?
- What are different types of this disease?
- What treatment options are there?
- What is pathophysiology?

Number 5

Peripheral smear of 58 years old male



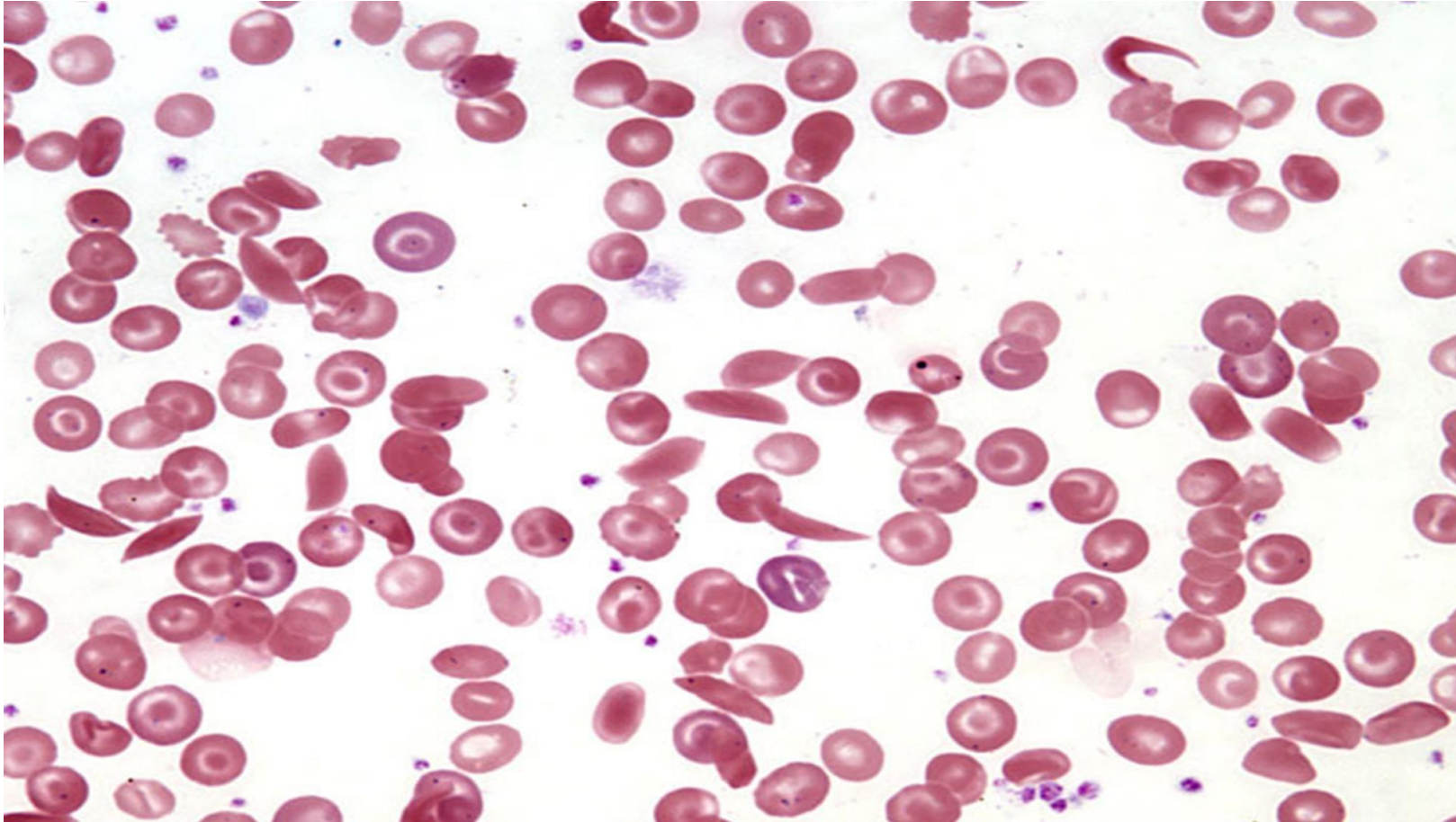
This is his CBC report

HAEMATOLOGY		Result	Normal Ranges
Test Name			
CBC ESR Profil			
Haemoglobin.	19.6 g/dl.	13.0 - 18.0	
Haematocrit.	55.1 Vol %.	36 - 54	
M.C.V..	80.3 fl.	76-96	
M.C.H..	28.6 pg.	27 - 32	
MCHC.	35.6 g/dl.	31-34	
RBC.. . . .	6.86 x10 ¹² /L.	4.5 - 5.5	
Platelet Count.	162 x10 ⁹ /L.	150 - 450	
WBC.	6.8 x10 ⁹ /L.	4.0 - 11.0	
Neutrophils.	44 %.		
Lymphocytes.	48 %.		
Eosinophils.	02 %.	1-6	
Monocytes.	06 %.	02-10	
ESR.	20 mm/hr.	0 - 25	

- What is final diagnosis?
- Different types of this disorder?
- What is diagnostic test of this disorder?

Number 6

Peripheral smear of 18 years old man with chronic right sided leg ulcer, pain in hands and feet



- What is diagnosis?
- what are complications of this disease?
- what is pathogenesis?

Number 7

What is abnormal in this report?

CBC AUTOMATED DIFF

CBC

WBC	* 0.5	4.5-11.0	Th/cmm
RBC	* 3.15	4.30-5.90	Mil/cmm
HGB	* 10.1	13.9-16.3	g/dL
HCT	* 29.0	39-55	%
MCV	92	80-100	fL
RDW	* 16.2	11.5-14.5	%
MCH	32.1	25-35	pg
MCHC	34.8	31-37	g/dL
PLT	* 45	140-440	Th/cmm

DIFFERENTIAL

METHOD

% NEUT	* 15	40-76	%
% LYMPH	* 84	24-44	%
% EOS	1	0-5	%
/ NEUT	* 0.1	1.73-7.13	Th/cmm
/ LYMPH	* 0.4	1.15-4.75	Th/cmm
/ EOS	* 0.0	0.05-0.43	Th/cmm

PLATELET ESTIMATE

2 TO 5

RBC MORPHOLOGY

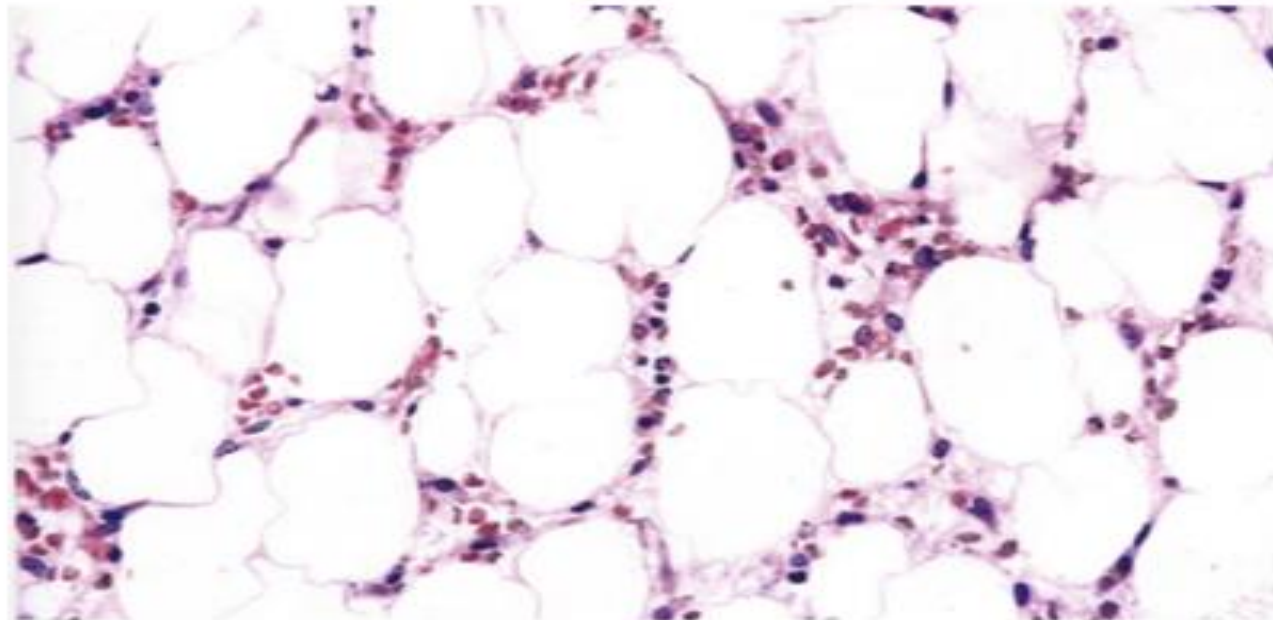
ANISOCYTES 1+

TEARDROP CELLS OCCASIONAL

- Which tests will you advise?

This bone marrow of same patient

Diagnosis?



- What is final diagnosis?
- What is criteria/grades of this disorder?
- What is pathophysiology?