

CASE DISCUSSION

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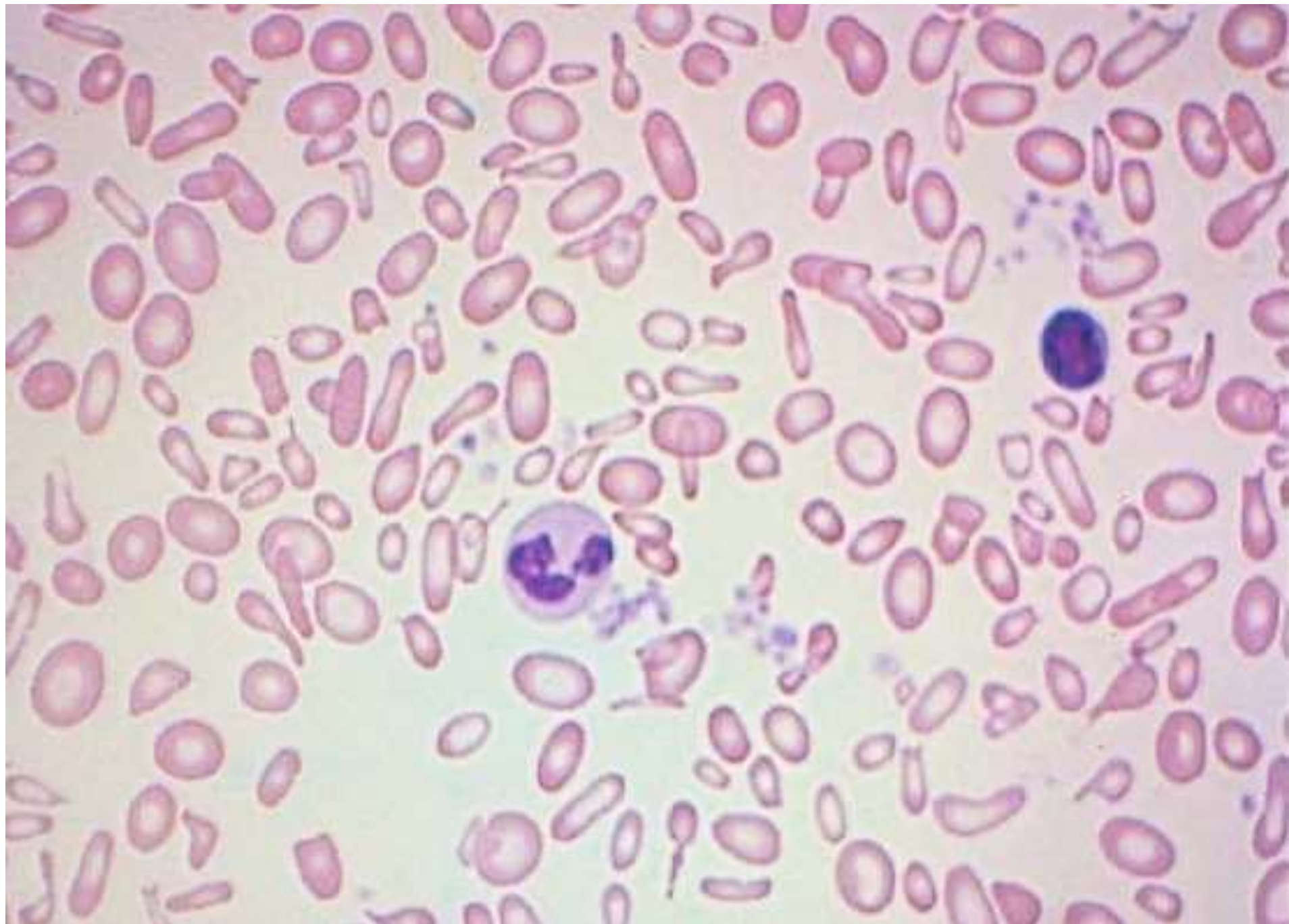
Case 1

- 23 years old female
- Presenting with easy fatigability, hair loss and very irritable
- On examination: Pallor present, koilonechia



- No history of blood loss
- No hepato-splenomegaly
- No lymphadenopathy

PARAMETER	VALUES	NORMAL VALUES
WBC	$4.9 \times 10^3 / \mu\text{l}$	$4.0 - 10.0 \times 10^3 / \mu\text{l}$
RBC	$1.6 \times 10^6 / \mu\text{l}$	$3.8 - 4.8 \times 10^6 / \mu\text{l}$
Hb	6.3gm/dl	11.0-15.0gm/dl
Hct	18%	36-46%
MCV	60fl	83-101fl
MCH	21pg	27-32pg
MCHC	24.6gm/dl	31.5-34.5gm/dl
RDW-CV	18.6%	11.6-14.0%
Platelets	$319 \times 10^6 / \mu\text{l}$	$150 - 400 \times 10^6 / \mu\text{l}$



Iron Studies

PARAMETER	Sr. Iron	Ferritin	TIBC	% Transferrin Saturation
PATIENT	↓	↓	↑	↓

Reticulocyte Count/ Mentzer Index

Reticulocyte percentage- 0.2%

Mentzer index- >13

Mentzer Index

It is used to differentiate iron deficiency anaemia
beta thalassaemia trait

Calculated as **MCV/RBC**

<13 – signifies thalassaemia trait

>13 – signifies iron deficiency anaemia

What is the diagnosis???

Iron Deficiency Anaemia

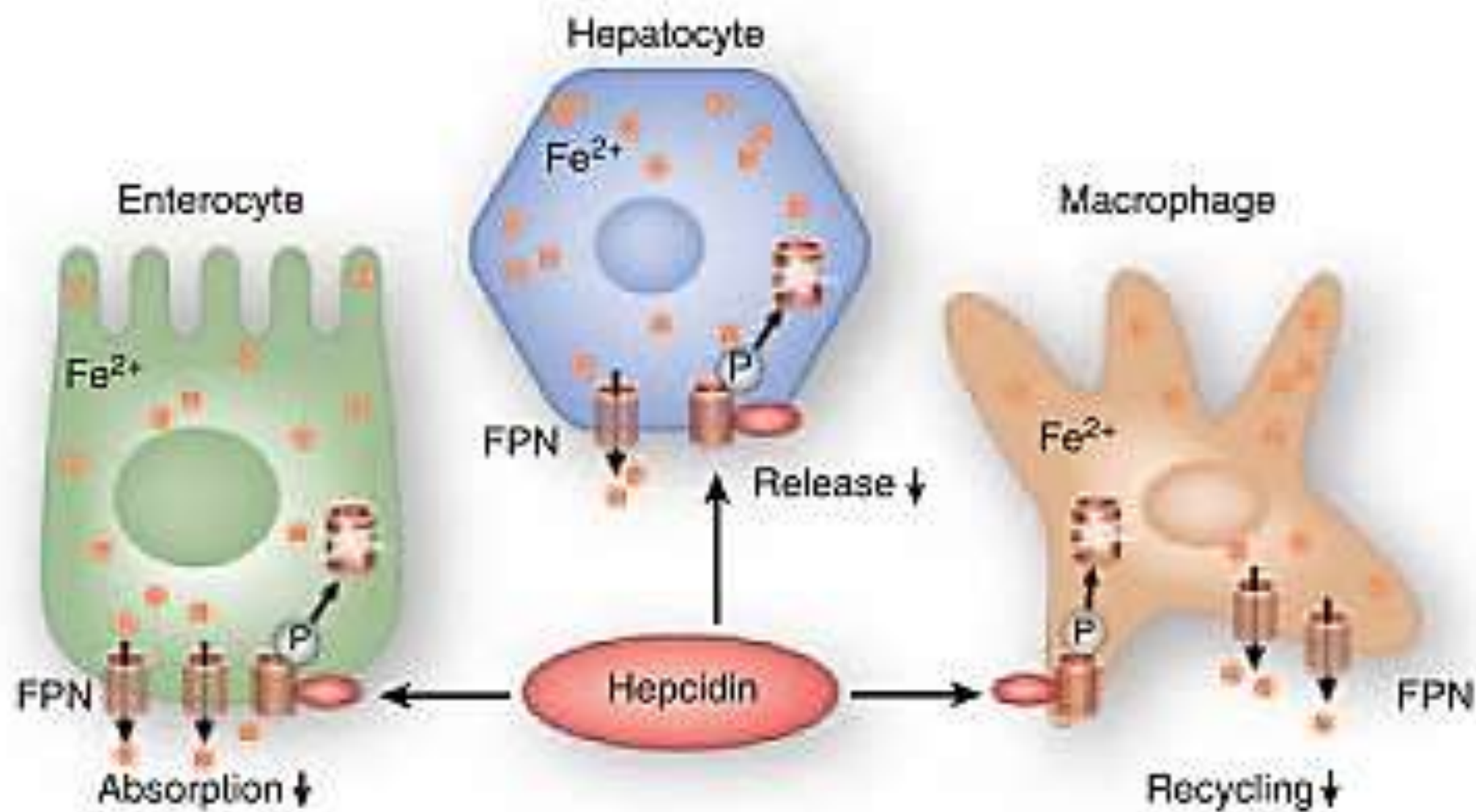
Oral iron therapy

However, there was **no response**

Response to iron therapy

- Sense of well being
- Increased retic count within a week.
- MCV improves within 3 weeks
- Hb 2g/dl within 4-8weeks

- RFT – within normal limits
- CRP- normal
- No stool occult blood



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- GASTRIC EXAMINATION WAS DONE

- Normal

IRIDA

- **Iron refractory iron deficiency anemia** is a hereditary recessive anemia due to a defect in the **TMPRSS6** gene encoding **Matriptase-2**.
- This protein is a transmembrane serine protease that plays an essential role in down-regulating hepcidin, the key regulator of iron homeostasis.

THANK YOU