



Thrombocytopenia secondary to severe Iron deficiency anaemia(1.9g/dl) in a multigravida pregnant women

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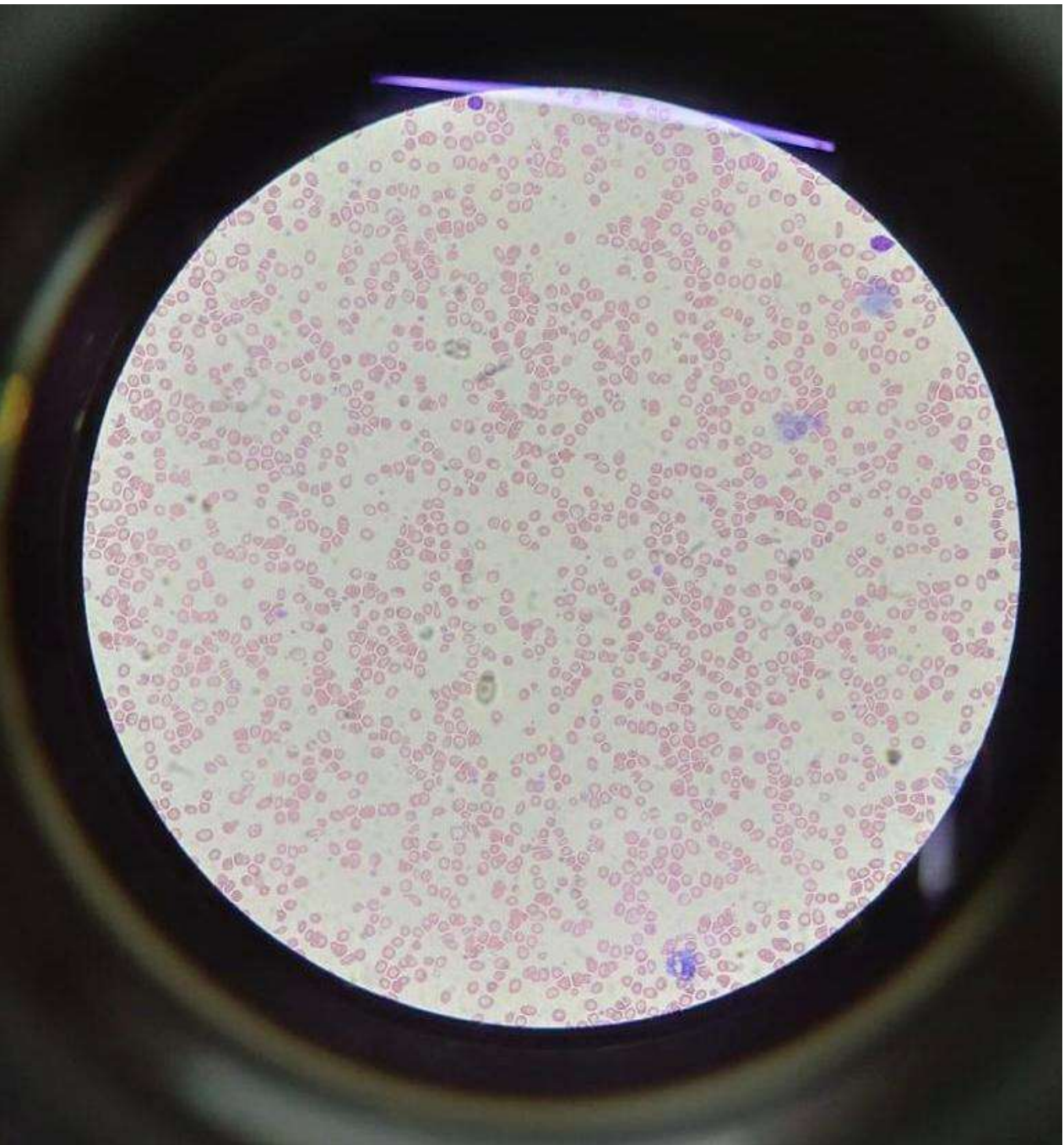
OBJECTIVE:

Anaemia is one of the important causes for maternal mortality in developing countries(20%). There are multiple causes for anaemia with thrombocytopenia in pregnancy important ones being HELLP syndrome, Thalassaemia, severe sepsis which are important factors for maternal mortality and morbidity. Timely recognition and treatment is essential to prevent maternal mortality and morbidity. We hereby present a rare case of thrombocytopenia secondary to severe iron deficiency anaemia in multigravida pregnant women who's thrombocytopenia was corrected following correction of iron deficiency.

CASE REPORT:

26 year-old G4P3L3 with 31 weeks of gestational age was admitted on 9/11/22, she presented with cough and dyspnoea for 3 days, associated with easy fatiguability and generalized weakness. She noticed swelling of limbs and face since 15 days. There was no significant past history of any chronic illness or received treatment for the same.

On general physical examination severe pallor was present and JVP was elevated. Lab values showed Hb 1.9gm/dl, platelet counts were 90000, Peripheral smear showed microcytic hypochromic anaemia with thrombocytopenia. Serum ferritin was 2. LDH and Hb electrophoresis were normal. Her failure was treated with furosemide and anaemia was corrected with transfusions. A total of 6 PRBC, 15 platelets, 4 FFPs were transfused over 7 days. Even after blood transfusions thrombocytopenia persisted however her Hb improved. Patient delivered after foleys induction . Iron transfusions were done with FCM following which even thrombocytopenia improved. Patient's condition improved rapidly. Platelet counts were 2.74 lakhs and HB was 11.7g/dl at the time of discharge.



Life Care Diagnostics - Caring for life

Name: [Redacted] Reg/Lab no.: 2211029/23422

Age/Gen: 26yrs / female Date of collection: 10-11-2022 at 06:07 PM

Referred by: [Redacted] Date of report: 17-11-2022 at 01:10 PM

Referred centre: KRH

HAEMOGLOBIN ELECTROPHORESIS

Hgb A1: 97%

Hgb A2: 2%

Hgb F: 1%

Dispatched by: Ravi Prasad ***END OF REPORT*** Printed by: Ravi Prasad ON: 17-11-2022 AT 01:10 PM

For any clarifications or escalation please contact +91 9490705621

Dr. Roopashree MD DNB Consultant pathologist

DISCUSSION:

Iron deficiency anaemia(IDA) is usually associated with either normal platelets or thrombocytosis. The association between IDA and thrombocytopenia is rare. And it is best diagnosed retrograde after correcting the anaemia when the platelets rise. The exact mechanism is not well understood; Apar Kishore Ganti et al suggested that it may be related to the alteration in the activity of iron dependent enzymes in thrombo and leukopoiesis.. Another suggested mechanism by T P McDonald and R Clift Cottrell might be an early response on megakaryocytes or shunting into the erythroid precursor pathway, leading to decreased platelet formation.

CONCLUSION:

1. Iron deficiency anaemia can be associated with thrombocytopenia.
2. It should be thought of after ruling out other causes like sepsis, HELLP syndrome, Thalassemia, TTP.
3. Thrombocytopenia caused by IDA responds well to iron replacement therapy, there by reducing maternal mortality and morbidity.

Name: [Redacted]

Age: 26 years

DOA: 9/11/22 at 5:28 PM

UHID: 20220068526

Diagnosis: G4P3L3 @ 31st weeks of GA @ cephalic presentation @ severe anaemia

Procedure done: in fulltime [coagulative cardiac failure] @ JVP not in labor.

Referred from: Regular ANC

Investigation	9/11	11/11	13/11	15/11	17/11	18/11	19/11	20/11	21/11/22
HB	1.9	4.1	6.2	8.2	8.4	9.8	10.1	10.4	11.7
Plat	90,000	13,000	18,000	29,000	9,000	16,000	80,000	1.64 lakhs	2.74 lakhs
TC	10,110	6280	8283	11680	1900	11150	12350	11410	91690
RFT									
Urea	42.5	41.3	15.6	10.7	19.6	16.2	14.4	13.7	14.4
Creat	1.08	1.01	0.54	0.5	0.48	0.49	0.45	0.45	0.49
LFT									
DB	0.46	0.51	0.39	0.33	0.47	0.49	0.67	0.67	0.3
TB	0.57	0.69	0.54	1.65	0.86	0.89	0.84	0.92	0.76
AST	82	35.3	17.2	2.8	24.1	22.1	2.0	2.1	1.9
ALT	16	30.2	19	19.2	18.5	18.5	18.5	17.4	16.8
ALB	2.3	2.21	2.2	2.83	2.5	2.4	2.43	2.7	2.6
GLB	3	2.3	2.8	3	3.8	2.6	2.5	2.6	2.4
TP	5.3	5.04	5	5.82	5.26	4.84	4.3	5.3	5.05
ALP	185	105	87	96	81	59	68	108	96
TFT									
T3/T4/TSH	123.9/16.3/2.1								
S/E									
NA ⁺	134.6	145	139	143	139	142	138	140	139
K ⁺	4.93	3.98	2.85	2.99	2.96	2.51	2.96	3.13	2.77
CL	106.5	93.8	104.6	101.9	101.2	105.5	101.2	102.3	100
MG2+ / URIC ACID	13.8	12	7.8	6.6	4.8	5.6	4.8	4.6	5.9
RBS	86.7								
LDH	334	320	254.3	249.8	219.7	210.8	208.7	219.8	200.3
PT	12.5		12.8	13.3		13.7			13.7
INR	0.93		0.95	1.3		1.01			1.01
APTT	35.7		35.1	35.2		32.8			35.7
URINE / TRANSFUSION	2OPBC	2OPBC	1OPBC	4OPBC	non	non	non	non	Discharge
ALB	10platelets	2OPFP	2OPFP	4OPFP	Transfusion	Transfusion	Transfusion	Transfusion	Good
SUGAR	30platelets	20platelets	20platelets	20platelets	Transfusion	Transfusion	Transfusion	Transfusion	non

Peripheral smear: Microcytic Hypochromic Hb

S. Ferritin: 2

Anaemia & thrombocytopenia.

ELECTROPHORESIS: (N)