A CASE OF PSEUDOAUTOIMMUNE HEMOLYTIC ANEMIA

MEDICINE UNIT III

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Case history

A 45 years old female k/c/o T2DM was admitted with

chief complaints of

Easy fatigability 20 days

Yellowish discoloration of eyes 20 days

H/o presenting illness

The pt was apparently normal 20 days back.Then she developed

H/o easy fatiguability

H/o yellowish discoloration of eyes.

H/o yellowish discoloration of urine

H/o loss of appetite

H/o exertional dyspnoea of grade II

- No h/o PND/orthopnoea
- No h/o chest pain, palpitaion.
- No h/o loss of weight
- No h/o any bleeding manifestation
- No h/o abdominal pain/distension
- No h/o swelling of legs/ reduced urine output.

Past history:

Known case of type 2 diabetes mellitus on glipizide 5 mg (1 BD) for 3 years.

Not a known case of HTN/CAD/COPD/BA/epileptic.

No h/o previous surgery/ blood transfusion.

Personal history :

Takes mixed diet

Normal bowel and bladder habits.

Married ;2 children; post menopausal female.

ON EXAMINATION

General examination:

Pt is conscious

Oriented

afebrile

pallor+

Icterus+

Grade 2 pandigital clubbing+

VITALS

- PR -96/min regular, large volume, felt in all accessible blood vessels, no radioradial /radiofemoral delay.
- BP- 110 /70 mm Hg.
- RR- 20/MIN.
- JUP- Not elevated

Systemic examination

CVS- S1 S2 heard.

RS - BAE+

normal vescicular breath sounds heard

PA- soft

spleen palpable 4 cm below left costal margin

Soft in consistency.

No hepatomegaly

No free fluid.

INUESTIGATIONS

Complete blood count:

Haemoglobin - 3.9 gm%

Total wbc count - 9800 /mm3

Differential count- P78/L20/M02

Platelet count- 1.45 lakhs/mm3

ESR - 120 mm/hr.

COMPLETE HAEMOGRAM:

- Hemoglobin - 2.1g%
- Total WBC count - 3500 cells/mm3
- Differential count-P65/L28/E01/M06
- Platelet count- 1.46 lakh/mm3
- Hematocrit- 11%
- MCV- 121 fl

- MCH- 37pg
- MCHC-30%
- RDW-24.6
- RETICULOCYTE COUNT- 2.4%

PERIPHERAL BLOOD SMEAR MORPHOLOGY

RBCS- Density decreased , dimorphic RBCs with macrocytes and macroovulocytes,normocytes with few tear drop cells. No hemoparasites

BIOCHEMISTRY

- RBS- 180 mg/dl
- FBS- 112 mg/dl, PPBS- 162 mg/dl
- UREA - 11 mg/dl
- Creatinine- 0.6 mg/dl.
- LIVER FUNCTION TEST-

  Total bilirubin- 2.1 mg/l

  direct- 0.4 mg/dl

  indirect-1.7 mg/dl.

  SGOT- 39 U/L

  SGPT- 13 U/L

Urine investigations:

Urine colour- straw colored

appearance- clear

albumin +

sugar +

bile salts and bile pigments- negative

Urine microscopic examination- RBCs- 1-2 /HPF

WBCs- 2-4 /HPF

pus cells- 2-4 /HPF

Stool examination no ova/cysts

occult blood -negative.

IRON STUDIES

- Iron - 76 µg/dl (40-140µg/dl)
- Total iron binding capacity- 320 µg/ dl. (300- 360 µg/dl)
- Serum ferritin- 311.5µg/dl (10-150µg/dl)

COOMBS TESTS:

DIRECT COOMBS TEST - POSITIVE.

INDIRECT COOMBS TEST - POSITIVE.

Others..

- ECHO- normal study.
- Usg abdomen and pelvis- splenomegaly.
- CXR - normal
- ANA - NEGATIVE

PROVISIONAL DIAGNOSIS

- COOMBS POSITIVE AUTOIMMUNE HAEMOLYTIC ANEMIA
- TYPE 2 DIABETES MELLITUS

TREATMENT GIVEN

- T.PREDNISOLONE – 5mg 10 OD PO.
- C.OMEPRAZOLE 20 mg 1 OD PO.

ON FOLLOW UP

- Repeat cbc after 1 week of steroids

Hb	2.4 g%
TOTAL WBC COUNT	4500
DIFFERENTIAL COUNT	76/22/02
PLATELET	1.8 LAKHS


What Next !
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CONCLUSION

POSITIVE COOMBS TEST causes

- *Megaloblastic anemia*
- Alloantibodies in recipients of RBC or plasma transfusion
- Antibodies directed against drugs that bind to RBCs
- Rbcs bound complements
- Antibodies produced by passenger lymphocytes in transplanted organs or hematopoietic components.
- Antibodies from maternal circulation against fetal RBC

- VITAMIN B12 ASSAY - 120 pg/dl.
  (200- 900 pg/dl)

AIM OF PRESENTATION

- To highlight approach to haemolytic anemia
- To insist that coombs test can be weakly positive in megaloblastic anemia .

serum lactate dehydrogenase. A weakly positive direct antiglobulin test due to complement can lead to a false diagnosis of autoimmune hemolytic anemia.

CAUSES OF COBALAMIN DEFICIENCY

Cobalamin deficiency is usually due to malabsorption. The only other cause is inadequate dietary intake.

TABLE 128-3 CAUSES O
CAUSE MI

Nutritional

Malabsorption

Gastric causes

THANK YOU