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Immune Thrombocytopenia

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CLINICAL HISTORY:

24 year old lady presented with complaints of:

1. Increased duration of menstrual flow, associated with passage of clots for 13days.
2. Bleeding gums lasting for around 5 days associated with bleeding from lips.
3. Small red brown coloured rashes present all over the body.

Patient was previously treated elsewhere and was found to have severe anemia and thrombocytopenia where she received 3 units of packed red cells (PRBC) and 4 units of random donor platelet concentrate (RDP), and was referred to JSS Hospital for further management.

No history of fever

No history of any allergy.

No similar complaints in the past.

No other comorbidities like DM, HTN, Thyroid or Asthma

No past h/o menstrual irregularities

EXAMINATION AND INVESTIGATIONS:

General:

Moderately built and nourished.

Pallor- Grade 3

Mucocutaneous bleed present.

Petechial rash present over left thigh and palate.

Vitals:

PR : 104bpm

BP : 130/90mmHg

RR : 27cycles/min

SpO2 : 96%

Systemic:

CVS: S1 S2 heard,

sinus tachycardia,

no murmurs.

RS: Normal.

PA : Soft.

No organomegaly

CNS: Conscious, oriented.

Blood:

Hb: 6.4gm/dl

TLC: 21390cells/cumm

RBC count: 2.72million/cumm

Platelet count: 0.04lakh/cumm

Reticulocyte count: 3.0%

MCV: 76.8fl

MCH: 23.5pg

MCHC: 30.6gm/dl

PT: 14.4

APTT: 23.5

Iron profile:

Iron: 35.54ug/dl (50-170ug/dl)

Tibc: 349ug/dl (270-450ug/dl)

Ferritin: 61.28ng/ml (10-120ng/ml)

PCV: 25.5% (36-46%)

Bleeding time: 10 min(2-5 minutes)

Clotting time: 9 min (3-8 minutes)

Peripheral Blood Smear:

Microcytic Hypochromic Anemia with neutrophilic leukocytosis and thrombocytopenia

Others:

HCV/HIV/HBsAg: Negative

Dengue NS1: Negative

Dengue IgM Ab: Negative

Weil Felix Test: Negative

ANA: Negative

Direct Coombs Test: Negative

Urine Routine : Normal

LFT, RFT: Normal

Thyroid Profile: Normal

Bone marrow Study: Normocellular marrow with megakaryocytic hyperplasia suggestive of peripheral platelet destruction.

Ultrasound Abdomen and pelvis: Within Normal Limits

At the time of discharge:

Hb: 7.6gm/dl

TLC: 12540cells/cumm

Platelet count: 1.86lakh/cumm

FINAL DIAGNOSIS:

Idiopathic thrombocytopenic Purpura (ITP) with Severe Anemia

Treatment Given:

PRBC Transfusion

Platelet Transfusion

Tranexamic acid(1gm IV) *6 days

Dexamethasone(4mg IV) * 2 days Followed by

Prednisolone(40mg)*5 days

9Azathioprine(50mg) * 5 days

Romiplostim(250mcg stat inj)

Iron Supplementation

Advice on Discharge:

Azathioprine (50mg)*30 days (1-0-0)

Prednisolone(40mg to taper 5mg every 5th day) (1-0-0)

Protein powder (1-0-1) (2tsp in a glass of milk)

Iron + Folic acid tab (1-0-0)* 1 month

Calcium + Vitamin tab (0-1-0)* 1 month

DISCUSSION:

Immune thrombocytopenic purpura (ITP), also known as idiopathic thrombocytopenic purpura, is an immune-mediated acquired disease of adults and children characterized by transient or persistent decrease of the platelet count and, depending upon the degree of thrombocytopenia, increased risk of bleeding.[1] Petechia, purpura, and easy bruising are expected in ITP. Less common are epistaxis, gingival bleeding, and menorrhagia. Uncommon findings are gastrointestinal (GI) bleeding, gross hematuria and intracranial hemorrhage.[2]

The diagnosis remains one of exclusion, after other thrombocytopenic disorders are ruled out based on history, physical examination, and laboratory evaluation. [3] Diagnosis is by doing Bone marrow study Which shows Giant Megakaryocytes with increased number of Megakaryocytes[4]

There are many treatment options.

Initial Treatment Prednisone (7-10 days) or Dexamethasone(4 days every 2 weeks for 4 cycles) + IVIG(2 days) or Anti-D +Platelets(if bleeding)

Relapsed/Persistent ITP Rituximab(iv weekly for 4wks) or Anti-D or IVIG(iv for 2days) or Romiplostim/Eltrombopag

Persistent/Worsening ITP Azathioprine/danazol or Cyclosporine or chemotherapy.

Splenectomy

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