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Post Transfusion Purpura With Immune Haemolytic Anemia-a Rare Presentation.

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Sir,

A 26 years old female , was referred to us with history of mild gum bleeding and rash over the extrimities 2 days after a blood transfusion she had received in another hospital for her anemia. There was no history of bleeding from any other sites, heavy menses, drug intake, malena, bone pains. There was no history of any chronic illness or repeated blood transfusions in past.

Physical examination revealed normal vitals. There were evidence of conjunctival hemorrhage in right eye (fig 1), oral mucosal and tongue hematoma, palpable purpura over abdomen (fig 2) and lower extrimities (fig 3). There was no sternal tenderness, icterus. Per abdomen examination was normal . other system examination was normal.

Investigations revealed Hb= 6 gm%, Peripheral smear revealed microcytic hypochromic RBC's, fragmented RBC's and schistocytes. TLC, DLC were normal. Serum LDH was 1500 U/L (normal 140-280 U/L). Retic counts was 6 %. A direct Coomb's test was positive. Absolute platelet count was 7000/mm³. Absolute partial thromboplastin time , prothrombin time/INR were normal. Human platelet antigen (HPA) genotyping and antibody identification by monoclonal platelet antigen capture assay revealed HPA1bb genotype and presence of an anti-HPA-1a antibody.

The diagnosis of post transfusion purpura with Coomb's positive haemolytic anemia was made and the patient was

treated with IVig 500mg/Kg for 2 days. No platelet transfusions were given and one unit of washed RBC was transfused after the immunoglobulin therapy. After 3 days of IVig therapy the repeat platelet count was 1,48000/mm³.

The purpuric spots faded , there was no fresh bleeding and the conjunctival and tongue hematoma resolved in next 2 days. Patient was discharged.



Fig 1. Showing conjunctival hemorrhage.



Fig 2. Showing purpura over abdomen



FIG 3; Showing purpura over lower extremities

Discussion:

Post transfusion purpura (PTP) is a rare bleeding disorder caused by alloantibodies specific to platelet antigens. It is a delayed immunohematologic reaction of blood transfusion. The antibody against the human platelet alloantigen (HPA)-1a is responsible for most of the cases. Clinically the patient presents with a sudden and self-limiting thrombocytopenia (platelet counts $<10 \times 10^9/L$ in 80% of cases), typically 7 to 10 days after a blood transfusion. The thrombocytopenia may evolve as an

autoimmune process, which may also cause hemolytic anemia due to a bystander phenomenon like in our case.

Patients usually have a history of sensitisation by either pregnancy or transfusion with five times more female patients affected than males. ^[1] Bleeding from mucous membranes and the gastrointestinal and urinary tracts is common. Mortality is rare but may be due to intracranial haemorrhage. ^[1] The treatment of choice is IVig 0,5-1g/Kg for 2 days . The RBC units must be washed to avoid exposure to platelet membranes and recurrence of thrombocytopenia. In future transfusions, washed RBCs or HPA1bb blood products should be used. ^[2,3]

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