25 Successful Bone Marrow Transplantation done at Lotus Hospital

Now Thalassaemia Can be Cured in NASHIK

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Dear Friends, colleagues and Seniors,

Summer is about to give way for refreshing monsoon and I hope all are preparing for your annual holiday or must have already enjoyed it. We recently successfully completed our 25th Bone Marrow Transplant at Lotus Hospital. She was a 17 year old female with aplastic anaemia. I thank you all for you continued patronage to Lotus Hospital.

Case 1:

45 yr old female was admitted at her local taluka headquarters for weakness and fever for 2 days's duration. She also had headache and bodyache. She had nausea and vomiting for 1 day. She had no significant past medical history. She was not on any regular medication. This was an acute illness. Her CBC done there showed Hb: 8.1 wbc: 6,200 and Platelet count was 32,000. She had no history of bleeding.

She was transferred to a big hospital in Nashik. Her Hb dropped to 4.5 and platelets to 12,000. Routine tests for dengue, Malaria and typhoid fever were negative. She had no bleeding. She complained of weakness and giddiness. She also developed fever. A diagnosis of probable viral fever with nutritional anaemia was made and was being treated. She received 4 packed red cell transfusions and 2 units of single donor platelets.

On day 4 of the admission in Nashik she developed seizures. She was already in ICU as she had low platelets at presentation!

Peripheral blood smear (PBS) was sent for examination at Lotus and request for consultation along with Bone marrow examination SOS. Her PBS showed distinct "red cell fragments" meaning we see broken down red cells along with signs of hemolysis. Platelets were low on PBS. No abnormal wbc or blasts were seen. PBS at local "side lab" did not show red cell fragments. Her LDH was ordered and it was very high. Reticulocyte count was high. Direct coomb's test was negative.

What is the diagnosis?

This middle aged lady had a microangiopathic haemolytic anaemia (thrombotic thrombocytopenic purpura or TTP) as she had haemolytic anemia, thrombocytopenia, high LDH, Fever and Seizures (CNS involvement). These are the 5 defining features of TTP.

What is the patho-physiology?

Basically this disease occurs due to intravascular fibrous deposition where the RBC are destroyed (mechanically) and because of endothelial activation platelets are aggregated and hence micro thrombi are formed. Hence we get anaemia and thrombocytopenia. LDH is high due to hemolysis. Fever is due to cytokine release and seizures due to platelet micro thrombi in brain vasculature. This explains the "pentad" symptoms of TTP. Antibodies are formed against von willebrand factor and hence platelet aggregation starts (detailed explanation not possible in this newsletter!!)

What are the causes?

1. Post partum or late pregnancy.
2. Secondary to autoimmune disease or malignancy associated.