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CONTRIBUTED REPORTS

Life-threatening Postpartum Anemia in a Jehovah's Witness

Angelina A. Gapay, MD - 2016

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Life-threatening Postpartum Anemia in a Jehovah's Witness

Angelina A. Gapay, MD Contributed to MedStar Bloodless by Author

Abstract

The management of Jehovah's Witness patients with bleeding and severe anemia can be very challenging because of non-acceptance of allogeneic blood transfusions. The challenge to the healthcare provider becomes even greater when the anemia becomes life-threatening in the presence of other co-morbid conditions.

A 32-year old primigravida in her 38-39 week of gestation, in labor, presented to the ED of our hospital on March 4, 2016, as referred by her obstetrician in another institution, for anemia, not responding to oral and IV iron. She complained of dizziness and hunger pangs and disclosed to the admitting obstetrician (OB) that her former OB advised her to reduce her food intake to avoid having a big baby and undergoing a cesarean delivery. She regularly took oral iron (105 elemental iron) once daily starting on her 3rd month of gestation. However, her haemoglobin, taken on 3 occasions (10 days, 3 days, and a day) prior to her admission stayed between 9.2-9.7 g/dL. She was given IV iron sucrose 3 times (dose not specified) a couple of weeks prior to this admission.

Physical examination at the ED showed an ambulatory, asthenic, pale pregnant patient with BP=120/80, HR=85/min, T=36.6 C, weight = 42.5 kg (93.5 lbs), height = 5'1", without signs of obvious bleeding or icteresia. Haemoglobin and hematocrit taken at the ED were 11.5 g/dL and 0.34, respectively. The haematologist made a peripheral smear which showed normocytic, normochromic red cells with a few microcytic ones, no immature white blood cells, and a slight thrombocytosis. ECG was normal. Urinalysis

showed infection. Pre-eclampsia (BP = 130/90 – 160/100) and azotemia complicated her pregnancy. (Table 1). Prothrombin time and aPTT, ALT, serum Na, K, Cl, TSH and FT4 were normal, FT3 low.

On the 4th hospital day (HD 4), she underwent vacuum-assisted delivery to a 2.3-kg baby, and sustained haemorrhage from lacerations in the vaginal wall and cervix. Management included tranexamic acid 1 gram every 8 hours for 6 doses, 6% HES 130/0.4 (Voluven) for blood replacement, and crystalloids. When Hb dropped to an alarming 3.4 g/dL, she was tachycardic and had shortness of breath. O2 inhalation and Ivabradine 5 mg BID was given for tachycardia. At this time, vaginal bleeding was minimal. The haematologist and nephrologist tried convincing the patient and family to receive blood transfusion. Then, I joined the medical team caring for her, per family's request.

Anemia management included iron sucrose 200 mg and EPO 4,000 units given on admission and post-delivery every other day for 5 doses; EPO 4,000 units (2 doses) a day apart and subsequently 10,000 units every other day for 4 doses, IV Vitamin B12, oral folic acid, O2, regular diet and complete bed rest. Phlebotomy was minimised to necessary tests only. No RBC was given.

Ascites, pleural effusion and severe peripheral edema and a very low serum albumin were noted. Diuresis was done. Ultrasound showed liver and renal (Grade 1) parenchymal disease. The patient accepted albumin after consultation with her family. On HD 12 (postpartum day 8), Hb rose to 6.0 g/dL, and upon discharge on the 18th HD, it was already 9.0 g/dL. On

the same day, serum albumin was minimally improved.

This Jehovah's Witness patient with postpartum life-threatening anaemia complicated by severe undernutrition, pre-eclampsia, chronic kidney disease, severe leukocytosis and thrombocytosis was successfully treated with non-blood management and has had monthly follow-up with her obstetrician and nephrologist.

Dr. Gapay's Notes

This patient developed severe thrombocytosis (platelet count of 600,000 plus) and leukocytosis (WBC count of 35,000 plus), both of which spontaneously subsided with improvement of the hemoglobin.

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Table 1

	ED	HD3	HD4	HD5	HD6	HD7	HD12	HD18
Hb (g/dL)	11.5	9.0	3.4-4.8	<4.8		3.6	6.0	9.0
Hct	0.34	0.26	0.11-0.14	0.12		0.11	0.16	0.26
WBC	11.47	12	19.5-25.4	28.91		35.59	16.52	13.74
Platelets	331	324	328-153	144		184	312	643
Creatinine (umol/dL) (NV: 5.3-8.84)		17.1	18.0			22.38	16.41	13.98
BUN (mmol/dL) (NV: 2.5-6.4)		0.698	0.51			1.447		
Albumin						1.61	2.4	2.6