TRANSFUSION MANAGEMENT IN IMMUNOGLOBULIN A DEFICIENT PARTURIENTS WITH POST-PARTUM HEMORRHAGE

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Background:

Immunoglobulin (Ig)A deficiency is the most common primary immunodeficiency whose prevalence ranges from 1:100 to 1:20,000, depending on ethnicity, and has a male predominance. In sensitized patients, exposure to blood products containing IgA antibodies can trigger a life-threatening anaphylactic reaction. We present the case of an IgA-deficient patient who underwent Caesarean section that was complicated by massive postpartum hemorrhage requiring blood transfusion.

Case:

A 28 y.o. G1P0 parturient at 38 1/7 weeks' gestation with past medical history significant for IgA deficiency presented for scheduled Caesarean delivery of twins. Her baseline hemoglobin and hematocrit were 10.0 mg/dL and 34 mg/dL, respectively. After delivery of both babies, the uterine tone was noted to be firm, and the initial quantitative blood loss (QBL) was approximately 1 liter. When the fundal exam was performed in the operating room, the patient passed numerous large clots and had brisk uterine bleeding.

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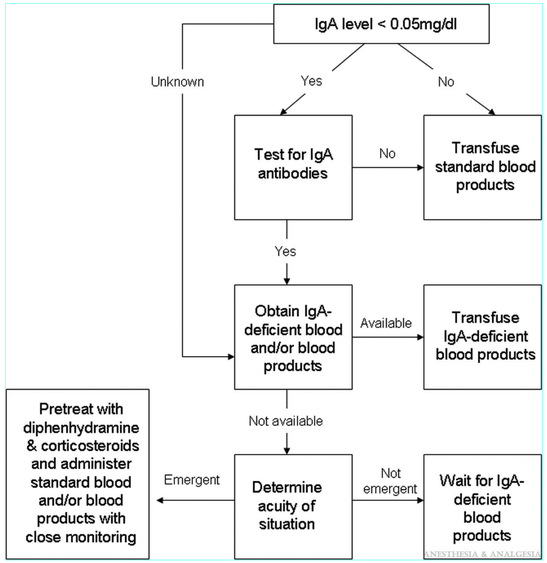
Management:

CBC and DIC panel were obtained, and an order was placed to prepare 2 units of washed RBCs. Tranexamic acid, misoprostol, methylergonovine, and carboprost were administered with improvement in hemostasis. Final QBL was approximately 3 liters. The patient was brought to recovery and transfused with 1 unit of RBCs for anemia. She was monitored overnight with improvement in bleeding. The following day, the patient developed orthostatic hypotension, dizziness and lightheadedness, and the hemoglobin dropped to 6.7 mg/dL. Subsequently, she received 2 additional units of washed RBCs. By postoperative day 2, all symptoms resolved; she was discharged home on postoperative day 4.

References:

Odineal, D. et al. Clinic Rev Allerg Immunol 2020.
Steel, C. et al. Anesthesia & Analgesia 2010.
https://www.britannica.com/science/blood-transfusion

Discussion:

1. Risk of anaphylaxis reaction
2. Saline washed PRBCs vs IgA-deficient donors
3. Preparation time
4. Shelf life
5. Other blood products: FFP, platelets, cryoprecipitate
6. Emergency cases – pretreatment with steroid and diphenhydramine