Abstract # 115

Use of Acute Normovolemic Hemodilution and Blood Cell Salvage in a Jehovah's Witness Undergoing Repeat Cesarean Delivery

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Introduction: The religious organization, Worldwide Association of Jehovah’s Witnesses (WAJW), has more than 7 million members. The likelihood of encountering pregnant Jehovah’s Witnesses undergoing cesarean delivery is increasing. Special considerations go into the perioperative management of these parturients since many strictly refuse transfusion of allogeneic blood products. This case describes the perioperative care and successful utilization of acute normovolemic hemodilution and intraoperative cell salvage for a devout Jehovah’s Witness parturient undergoing elective repeat cesarean delivery.

Case: A 40-year-old term parturient presented for elective repeat cesarean delivery #2 and bilateral tubal ligation. Her history was remarkable for gestational thrombocytopenia. Previous cesarean delivery was performed due to arrested labor. Uterine atony and coinciding hemorrhage occurred during that case. Aggressive fluid resuscitation was required but no blood products were administered. During the preanesthetic visit for this delivery, the patient was extensively evaluated and counseled. She verbally expressed her refusal of all allogeneic blood products and agreement to the use of normovolemic hemodilution and/or intraoperative cell salvage. She refused to sign the hospital’s official medical forms documenting this. Instead, she presented WAJW Advanced Directive documentation. Counsel was acquired from the hospital’s medicolegal team to verify that this outside documentation would be legally acceptable. Preoperative lab values were: hemoglobin (13g/dl), hematocrit (37%), and platelets (112,000/mm3). Thromboelastography parameters showed normal coagulability (R = 6.0, MA =61.6). Placental location was anterior with no evidence of previa. Intravenous access was secured. ~750 mL of maternal whole blood was collected in standard CPD storage bags. One liter of colloid solution was co-administered. The procedure proceeded uneventfully under spinal anesthesia. Apgar scores were 8 and 9. Blood loss was ~1000 mL. At the procedure’s end, the collected blood was returned via closed circuit that was maintained at all times. Blood cells had been scavenged via an autologous recovery system, but they were not transfused since the patient was hemodynamically stable.

Discussion: WAJW members may exercise their autonomous right to refuse transfusion of allogeneic blood products due to their strong religious convictions. For optimal patient outcomes, the obstetric anesthesia provider must be familiar with blood conservation strategies and ensure that appropriate legal documentation is in place. Both normovolemic hemodilution and intraoperative cell salvage have been demonstrated to have a role in the safe provision of care for such patients.

References: