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POSTER

905. OUTCOMES RESEARCH: NON-MALIGNANT CONDITIONS EXCLUDING HEMOGLOBINOPATHIES

Iron infusions in pregnant women are associated with comparable efficacy and safety compared to non-pregnant women

Steven Fein[1], *Dayne Alonso*[1], *Gloria Campos*[1], *Monica Menendez*[1], *Adam Lewkowitz*[2], *Gina Peralta*[1], *Nicole Peralta*[1]

[1] Heme on Call, telemedicine hematology practice, Miami, United States
[2] Brown University, Obstetrics and Gynecology, Providence, United States

Abstract Background: Iron infusions in pregnant women who have iron deficiency anemia (IDA) have been shown to be effective, safe, and well-tolerated, but there is a prevailing perception that pregnant women may experience a higher risk of infusion reactions compared to non-pregnant women. This study aims to compare the efficacy, safety, and tolerability of iron infusions in pregnant woman with iron deficiency (ID) to those in a contemporary group of non-pregnant women with ID.

Methods: In this single center case series, pregnant women in their 2nd or 3rd trimesters, who had iron deficiency (ID, ferritin<30ng/uL or iron saturation <20%) received iron infusions in an outpatient infusion center with nurses trained to monitor patients carefully for infusion reactions. Before the infusions, the women were assessed in a hematology consult for symptoms of ID, including shortness of breath, fatigue, and ice craving/ice chewing, as well as lab testing consistent with ID. A randomly selected contemporary non-pregnant cohort was reviewed for comparison.

The iron formulation each woman received was determined by her health plan coverage and, in some cases, by her experience with prior iron infusions. Most women with iron deficiency without anemia (IDWA, hemoglobin >12g/dL) were prescribed 400-500mg iron and most women with iron deficiency anemia (IDA, hemoglobin >12g/dL) were prescribed 800-1000mg iron. Two weeks after the final infusion, follow-up iron and blood counts were measured, and symptoms were re-assessed in a follow-up visit. Safety and tolerability of iron infusions were determined by reviewing frequency of reactions that occurred during infusions (observed) including complement activation-related pseudo allergy (CARPA) and immune-mediated hypersensitivity reactions, as well as transient discomfort within the first few days after iron infusions (assessed by self-reports or reported during follow-up visits).

Results: 2,225 pregnant women and 632 non-pregnant women received 6,486 iron infusions between June 2021 and June 2023, including Ferric Derisomaltose (FDI) 1000 mg (n=819), Ferumoxytol (FM) 510 mg per dose (n=601), or Iron Sucrose (IS) 200-400mg per dose (n=1,437).

The average hemoglobin increase was 1.2g/dL in pregnant women with IDA and 1.8g/dL in non-pregnant women with IDA. Symptom relief (shortness of breath, fatigue, or ice craving/ice chewing), was reported in 82% of pregnant women and 80% of non-pregnant women. Infusion reactions, including CARPA reactions, occurred in 3.3% of pregnant women and 3.5% of non-pregnant women. Post-infusion discomfort symptoms including tiredness, headache, low back pain, leg swelling, or shortness of breath, occurred in 16.6% of pregnant women and 8.5% of non-pregnant women.

Conclusion: Iron infusions are equally effective and safe in pregnant women as they are in non-pregnant women. This study noted slightly more post-infusion discomfort symptoms in pregnant women, which can sometimes overlap with symptoms attributed to late pregnancy. Overall, the benefits of iron infusions during pregnancy outweigh any associated risks.

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