Parenteral iron sucrose treatment in pregnancy: A Study on Hemoglobin response in Khyber Pakhtunkhwa Pakistan

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ABSTRACT

Objective: To evaluate the response of iron therapy in gestational anemia at Khyber Pakhtunkhwa (KPK) province.
Study Design: Prospective single arm interventional study.
Place and Duration: From 1st August 2021 to 1st February 2022 at the Obstetrics and Gynecology Department of Combined Military Hospital Peshawar.
Methodology: This study included 102 participants. The sample size was calculated to achieve a 95% confidence level. Participants were selected using a random sampling technique to ensure representativeness of the target population. Collected variables included maternal age (years), gestational age (weeks), baseline hemoglobin (Hb) level prior to initiation of therapy (g/dL), Hb level after 04 weeks of therapy (g/dL), and the change in Hb level (post-therapy minus baseline). Categorical variables included financial status (low, middle, high income) and place of residence (urban or rural). Data analysis was performed using the Statistical Package for Social Sciences (SPSS) version 22. Mean and standard deviation were calculated for continuous variables, while frequencies and percentages were calculated for categorical variables. Post-stratification Chi-square tests were applied to assess associations between categorical variables, including financial status, residential status, and treatment efficacy. A p-value of ≤ 0.05 was considered statistically significant.
Results: Age range in this study was from 18 to 45 years with mean age of 28.666±3.31 years, mean gestational age 20.284±2.21 weeks, mean baseline Hb 7.705±0.93%, Hb after 12 weeks 9.637±1.76% and mean change in Hb level was 1.931±1.10%.
Conclusion: Intravenous iron sucrose is an effective treatment for iron deficiency anemia in pregnancy, producing a significant rise in hemoglobin. Its use results in meaningful correction of anemia, indicating that it is a safe and reliable option for iron replacement.
Keywords: Anemia, Hemoglobin, Iron deficiency anemia, Iron sucrose, KPK, Pregnancy.

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