



## Letter to the Editor

# Intravenous ferric carboxymaltose for the treatment of iron deficiency anemia: Letter to Editor

Dear Respectable Editor,

While we are reading with great interest the article published by Friedrisch et al. in the Revista Brasileira de Hematologia e Hemoterapia 2015;37(6):400–5. doi:10.1016/j.bjhh.2015.08.012, many questions came to mind. We would be grateful if the authors clarified the following queries to us and to the readers.

First, Friedrisch et al., stated that treatment with intravenous ferric carboxymaltose (FCM) improves indices of anemia, hemoglobin, ferritin and trans-ferrin saturation values.<sup>1</sup>

Other authors mentioned that the efficacy of the parenteral iron infusion used for treatment of iron deficiency anemia (IDA), checked by comparing the pre-treatment hemoglobin concentration, serum ferritin, mean corpuscular volume and mean corpuscular hemoglobin with the post-treatment value.<sup>2–6</sup>

Second, Friedrisch et al. stated that the intravenous FCM properties permit the administration of large doses (15 mg/kg, maximum of 1000 mg/infusion) in a single and rapid session (15-min infusion), without the requirement of a test dose.<sup>1</sup>

Other authors stated that the total parenteral dose for correction of IDA should be given and calculated according to the body weight, hemoglobin deficiency and depleted iron stores, using the following formula: total parenteral iron needed in mg =  $2.4 \times \text{pre-pregnancy weight in kg} \times (\text{target hemoglobin} - \text{actual hemoglobin}) \text{ g/dL} + 500 \text{ mg}$ . Twelve (12) g/dL is the target hemoglobin concentration, 2.4 is the correction factor and 500 mg is the amount of stored iron in pregnant adult women.<sup>2–8</sup>

Recently, Froessler et al. applied another regimen of 20 mg/kg body-weight of FCM for treatment of IDA in pregnancy with a maximum dose of 1000 mg in a single infusion and they stated that an ideal dosing regimen currently does not exist.<sup>9,10</sup>

Please clarify to us and to the readers the ideal method for checking the efficacy of parenteral iron treatment and the

ideal method for the calculation of the total parenteral iron needed for treatment of IDA in pregnancy.

## Conclusion

The efficacy of the parenteral iron infusion used for treatment of IDA is checked by comparing the pre-treatment hemoglobin concentration, serum ferritin, MCV and MCH with the post-treatment value. Total parenteral dose for correction of IDA should be given and calculated according to the body weight, hemoglobin deficiency and depleted iron stores, using the following formula: total iron needed in mg =  $2.4 \times \text{pre-pregnancy weight in kg} \times (\text{target hemoglobin} - \text{actual hemoglobin}) \text{ g/dL} + 500 \text{ mg}$ . Twelve (12) g/dL is the target hemoglobin concentration, 2.4 is the correction factor and 500 mg is the amount of stored iron in pregnant adult women.

Compliance with ethics guidelines.

## Authors' contributions

SK is responsible for the idea for the letter, intellectual content and update of references. GZ is responsible for the Microsoft editing and update of references. IAA is responsible for the design and submission for publication. TS is responsible for the intellectual content and update of references.

## Ethical approval

This article does not contain any studies with human or animal subjects performed by any of the authors.

## Conflicts of interest

The authors declare no conflicts of interest.

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