Qeios

Peer Review

Review of: "Role of Inflammation in the Pathogenesis of Anemia in Chronic Kidney Disease: Exploring the Impact of Inflammatory Biomarkers on Erythropoiesis and Erythropoietin Response"

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1. Independent researcher

Ogolla et al. report a research article describing the role of inflammation (CRP) on erythropoiesis and erythropoietin response in chronic kidney disease patients. Some points need to be clarified.

1. Abstract, Background:..... A very important aspect of anemia is that erythropoietin (EPO) resistance plays a very major role..... How do you define the role of EPO deficiency in CKD patients under dialysis?
2. Introduction, first paragraph, ".....impairment in erythropoiesis defining". What does that mean? Which reference does it come from? This paragraph is different in the Abstract part.
3. Introduction, 2nd paragraph, "Furthermore, inflammation plays an important role in ..... resistance towards EPO therapy". What does it come from (reference)?
4. Introduction, 4th paragraph, "CRP used as a very well system failed marker in inflammation". What does that mean?
5. Methods, 2nd paragraph, "The exclusion criteria were active infections, malignancy, recent blood transfusions, ..." How do you define recent blood transfusions, in one week, in one month, or in half a year?
6. Why do you use CRP 10 mg/L as a cut-off point? Did you use a statistical method like correlation regression or other methods to find that? Some other papers use 5 mg/L as a cut-off point. (Clin

doi.org/10.32388/21MO4Z

Exp Nephrol. 2015 Aug;19(4):725-31.)

7. In the results section, please use another way to express multivariate analysis to show the factors including Hct, EPO dose, transferrin saturation, ferritin, and HD duration between high and low CRP levels (Table 4).
8. You mention several times that CRP level is related to EPO resistance. However, you only showed that the needed dose of EPO increased. How do you define EPO resistance?
9. Discussion, 2nd paragraph, "In addition, there has been vast literature on the contribution....." please cite a reference, not only say "vast literature".
10. Discussion, latest paragraph, "Where the first agent is the anti-inflammatory drug and where the .....". I wonder if you prescribe NSAIDs (non-steroid anti-inflammatory drugs) to your CKD patients under HD? As I know, NSAIDs could induce gastrointestinal bleeding or thrombocytopenia, especially in CKD patients under HD. Is it too risky?
11. Ferritin is another inflammation factor. How do you explain that ferritin decreases and CRP elevation? On the other hand, low ferritin is related to iron deficiency anemia. That may be related to poor intake of iron-containing food or blood loss during HD (e.g., volume clot). Please mention those and clarify in your patient group.
12. Conclusion, 1st paragraph, "this current study.....with the "'"genesis"'" and control of anemia...". However, I do not see you ever mention the genesis.

Declarations

Potential competing interests: No potential competing interests to declare.