Erythropoietin therapy and the Cardiovascular Outcome in Cardio-Renal Syndrome patients

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OBJECTIVES

Aim of the work was to investigate the value of erythropoietin therapy in the treatment of CRS patients with anemia and anemic heart failure and to evaluate the relationship between clinical, echocardiography and serum BNP levels in those patients compared to the standard therapy as iron supplement and blood transfusion.

RESULTS

It was found that in group -1, Six cases improved after erythropoietin therapy and so changed from class 3 to class 2. Two cases also improved after erythropoietin therapy and so changed from class 2 to class 1. Finally, we can say that 8 cases improved and moved to a better NYHA class and this represents 53.3% improved cases of EPO cases of the study and represent 26.6% of total cases. Group - 2 on traditional therapy like blood transfusion, iron got no remarkable improve in myocardial functions detected by non significant decreased BNP level by 17.5% but worse echo changes detected by significant decreased EF% by 9.7%, non significant decreased FS by 3.2% and significant increased LVEF by 9.4%.Concerning Hb non significant increased level by 1.2% Also two cases deteriorated after traditional treatment and so one case changed from class 3 to c a 4 and the other case changed from c a 2 to c a 3 while the remaining 13 cases didn’t change. Finally we can say that, no cases improved and transmitted to better NYHA class after traditional treatment and that represent 0% of total cases while there were 2 cases deterioration that represent 13% of this group and 6.5% of total cases in the study.

CONCLUSIONS

In this study EPO treatment reduced BNP levels in patients with cardio-renal anemia syndrome. The correction of anemia by EPO treatment appears to be able to improve clinical outcome in this subset of patients with heart failure, detected by significantly decreased BNP level by 33.8% in comparison to non significant decreased BNP level by 17.5% but worse echo changes detected by significant decreased EF% by 9.7%, in population exposed to standard therapy.

References