

## Influence of age on recombinant Human Erythropoietin (rHuEPO) responsiveness in hemodialysis patients with and without diabetes

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**Aim:** The aim of the study was to determine if there is a relationship between age and rHuEPO requirement in maintenance hemodialysis patients (HD), and if this association is maintained in diabetics.

**Patients and Methods:** A retrospective analysis of maintenance HD patients was performed. Exclusion criteria included duration of HD less than 3 months, active infection, evidence of active blood loss, and/or recent hospitalization. Patients were divided into 2 groups by diabetic status.

**Results:** One hundred eighty-nine patients were included. Diabetics (n=45) were found to be older ( $62\pm 12$  yrs vs.  $52\pm 17$  yrs;  $p=0.008$ ) and used less rHuEPO ( $98.35\pm 14.48$  IU/kg TT/weekly vs.  $73.30\pm 10.55$  IU/kg TT/weekly,  $p=0.005$ ) when compared to non-diabetics. There was no statistical difference in iron saturation, ferritin, hemoglobin levels, and markers of malnutrition-inflammation. When the 2 groups were analyzed independently, a significant negative correlation of rHuEPO usage and age was found ( $r=-0.269$ ;  $p=0.037$ ) in non-diabetics. However, this relationship was not maintained in the diabetic group.

**Conclusion:** This data suggest that there is a decreased rHuEPO requirement in diabetics as compared to non-diabetics. In addition, age may enhance rHuEPO responsiveness in non-diabetics but does not have any influence in diabetics. Finally, the improved response in diabetics may not be due to the difference in age, but may be due to other etiologies. Anemia management needs to be individualized among diabetics and non-diabetics due to the varying rHuEPO responsiveness.

### Biography

Zorica Dimitrijevic has completed her M.D. and Ph.D. from University of Nis, Serbia and works as a staff physician at Clinic of Nephrology as well as teaching assistant in nephrology at Medical school, University of Nis, Serbia. She has published number of papers in reputed medical journals.

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