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**Original article:
Impact of correction of anemia on major complication of chronic renal diseases**

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**Abstract:**

**Objective:** To assess the impact of correction of anemia on the major complication of Chronic renal disease (CRD).

**Methodology:** A prospective study evaluating the correction of anemia in CRD patients with recombinant human erythropoietin (rHuEPO) over a period of one year.Ejection fraction (EF), left ventricular mass index (LVMI), mini-mental status examination (MMS), cognition, focal neurodeficit and general sense of wellbeing (GSW) were measured by echocardiography, and appropriate scales on admission respectively at 3 months and 6months follow-up to find out the hemodynamic changes that could be achieved by correction of anemia.

**Results:**Statistically strong significant (*P*<0.001) improvement of hemoglobin level occurred with rHuEPO therapy in the overall population, both at 3 month and 6 month follow-up. Statistically significant (*P*<0.05) improvement of EF occurred at 6 months follow-up in total population. At 6 months follow-up, there was significant change (*P*=0.015) of LVMI in total population. Even at 6 months follow-up, there was no significant change in the MMS (*P*=0.66) and cognition (*P*=0.20) of the study population, but significant improvement (*P*<0.001) of GSW occurred among the study population. There was also positive correlation between improvement of anemia with improvement of EF at 3 months follow-up (r =0.531).

**Conclusion:** Correction of anaemia, even if partial, causes significant improvement in cardiovascular function as evidenced by increase in EF, even at short term follow-up of 6 months in our study. Anaemia of CRD also have an impact on neurological and GSW.

**Keywords:** Chronic renal disease, Recombinant Human Erythropoietin, RBC, GFR, Haemodialysis.