

CHRONIC KIDNEY DISEASE AND ANEMIA: UPDATED MANAGEMENT ISSUES

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Anemia is common in patients with chronic kidney diseases (CKD). It is a common complication of advanced CKD. Its prevalence in CKD stage 5 populations is over 50%. The hormone “erythropoietin” (EPO) secreted by the kidneys is essential in the maintenance of adequate hemoglobin in human body. Apart from failure of EPO secretion, many other factors including chronic inflammation, uremic bone marrow suppression, hyperparathyroidism, poor absorption of substrates from the uremic gastrointestinal tract etc. contribute to development of anemia in patients living with advanced kidney failure and dialysis. Iron deficiency state due to absolute or relative iron deficiency is common in CKD population. Furthermore, nutritional anemia is common in general population in our part of the world. Majority of this is also a result of iron deficiency. Replenishing iron stores in the body is the first strategy in the management of this condition. Besides the use of iron, deficiencies of other substrates like vitamin B12 should also be taken into account while managing anemia in CKD. Ferric citrate can be used as an hematinic and phosphate binder as well. Blood transfusion was invariable treatment strategy in the remote past. Though oral and parenteral iron and other hematinics are routinely used in the management of CKD, various erythropoiesis stimulating agents (ESAs) used as injectable solutions lead the current therapeutic strategy in the treatment of anemia in patients with end stage renal disease (ESRD) and renal replacement therapies. More recently newer agents, the prolylhydroxylase inhibitors (PHI) like roxadustat which act as hypoxic ischemic factor (HIF) stabilizers have been more appealing to the patients and the clinicians. In contrast to the parenteral administration of ESAs, these new agents can be administered orally. While anemia is common, ideal treatment for anemia in CKD is still unsolved riddle and demands further research.

Keywords: Chronic kidney disease, anemia, erythropoietin, hematinics

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