

Re: Effect of Erythropoietin on Kidney Allograft Survival: Early Use After Transplantation

Dear Editor,

We read with great interest the nice published article by Yasari and colleagues, in the esteemed *Iran Journal of Kidney Diseases*, entitled "Effect of erythropoietin on kidney allograft survival: early use after transplantation."¹ In this study, they focused on the impact of recombinant human erythropoietin on graft survival during the 6 months after kidney transplantation. Forty kidney transplant candidates with a hemoglobin level of 8 g/dL to 10 g/dL were randomized to receive either erythropoietin or placebo for the first posttransplant week. They found that erythropoietin may have beneficial effects on graft function if administered early after transplantation and concluded that erythropoietin could be used for all kidney transplant recipients for protecting the allograft due to its effects on tissue oxygenation.¹

We congratulate for their work, however, we would like to remind a few points about renoprotective properties of erythropoietin. In a study, evaluating the ameliorative effects of erythropoietin, we studied 40 male Wistar rats with a weight range of 200 g to 250 g. They were allocated randomly to 4 groups of 10 each. Of these, there was a special group, in which the rats first received gentamicin, 100 mg/kg, for 10 days and then they received erythropoietin, 100 U/kg, intraperitoneally, for the next 10 days. The rats were sacrificed at the 20th day and kidneys were removed.² All specimens were examined for 6 morphologic parameters including epithelial cell vacuolization, degeneration, tubular cell flattening, hyaline cast, tubular dilatation, and debris materials in tubular lumen on a semiquantitative scores from 1 to 5, while the score of zero was assigned to the normal tissue without damage.^{3,4} Erythropoietin was able to prevent the increase in serum creatinine and blood urea nitrogen. Furthermore, co-administration of gentamicin and erythropoietin effectively reduced the kidney tissue damage compared to control group.

Our study showed the kidney protective properties of erythropoietin, when the drug was

given in combination with gentamicin. However, the protective properties of erythropoietin was also observed when the drug was applied after gentamicin-induced tubular damage and was revealed that the drug was still effective after installation of tissue damage.² This indicates that erythropoietin may have curative effects, in addition to its preventive properties.^{2,5-10} Hence, in the study of Yasari and colleagues, the beneficial effects of erythropoietin on kidney transplant patients might be due to renoprotection beyond anemia correction.⁸⁻¹² Thus, erythropoietin is a promising kidney-protective agent to prevent, ameliorate, or attenuate tubular damage induced by gentamicin or other nephrotoxic agents which act through the same mechanisms as gentamicin.¹³⁻¹⁵ In this regard, to better understand the preventive properties of erythropoietin, more experimental or clinical studies are suggested.

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Re: Self-esteem in Greek Dialysis Patients: the Contribution of Health Locus of Control

Dear Editor,

We read the article “Self-esteem in Greek Dialysis Patients: the Contribution of Health Locus of Control” written by Theofilou,¹ with great enthusiasm. She investigated the relationship between health locus of control (LOC) and self-esteem among 144 Greek patients undergoing renal replacement therapy (84 on hemodialysis and the other 60 on continuous ambulatory peritoneal dialysis). She found that there was a positive significant correlation between self-esteem and internal LOC.

We appreciated the interest that is given in the healthcare process to psychological aspects, which are too often underestimated by physicians. Recently, we carried out a review about the spirituality and religiosity of patients suffering from chronic kidney diseases,² and we stressed the importance of a holistic nursing in the framework of the new model of *P6* medicine we introduced.^{3,4} The 6 “P”s stand for personalized,⁵ predictive, preventive, psychological, participatory, and public.^{4,6} Patient’s beliefs, self-concepts, models, and representations of the disease are of crucial and fundamental interest for clinicians, who can help patients to better cope with the pathologies, and to be more adherent and compliant to the treatment. The LOC plays indeed a key role, being

a method that patients use in order to attribute the cause of their own disease.^{7,8} An individual who thinks that he/she can determine events by their own actions is said to have an internal LOC, while the contrary tendency is referred as externality of LOC. Internal LOC in fact correlates with an idea of a controllable disease, while external LOC reflects the patient’s impression of an incurable illness and a denial of its symptoms, which often results in refusing care and rehabilitation, which are vital in chronic diseases.

From the literature, evidence has been collected that LOC can be used as a predictor of the effectiveness of clinical outcomes in patients undergoing dialysis and psychological interventions can be designed ad hoc.⁹ Few studies have instead explored the relationship between LOC and patient’s self-confidence,¹⁰ and we believe that the findings should be replicated and confirmed as well as the underpinning of related predictors should be validated in large prospective studies.

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