Re: Sex Differences in Protective Effect of Recombinant Human Erythropoietin Against Cisplatin-induced Nephrotoxicity in Rats

Dear Editor,

I read with interest a recently published article in the *Iranian Journal of Kidney Diseases*, by Eshraghi-Jazi and colleagues, entitled “Sex Differences in Protective Effect of Recombinant Human Erythropoietin Against Cisplatin-induced Nephrotoxicity in Rats.” The authors have concluded that erythropoietin ameliorates nephrotoxicity induced by cisplatin in male animals, but not in females, possibly due to sex-based differences in renal circulation and rennin angiotensin system. I would like to mention a newly suggested reason for these differences, which is related to estrogen. A recent study demonstrated that estrogen has a suppressive effect on erythropoietin induction, leading to deceleration of erythropoiesis. Moreover, estrogen abolishes protective effects of erythropoietin against cisplatin-induced nephrotoxicity in ovariectomized rats. In addition, there exist sex differences in endogenous erythropoietin. The concentration of erythropoietin is higher in males than females. Thus, administration of exogenous erythropoietin will increase its level in both sexes but to a higher extent in males than females.

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REFERENCES