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

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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.[1]" 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.[2,3] 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.[4] Moreover, estrogen abolishes protective effects of erythropoietin against cisplatin-induced nephrotoxicity in ovariectomized rats.[5] In addition, there exist sex differences in endogenous erythropoietin. The concentration of erythropoietin is higher in males than females.[6,7] Thus, administration of exogenous erythropoietin will increase its level in both sexes but to a higher extent in males than females.

Amr A EL-Arabey

Pharmacology and Toxicology Department, Faculty of Pharmacy, Al-Azhar University, Nasr City, Cairo, Egypt
E-mail: ph.amrcapa@gmail.com

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