Khazaei et al. in the article entitled, “Protective effects of subchronic caffeine administration on cisplatin induced urogenital toxicity in male mice” found that caffeine recovers toxicity induced by cisplatin in kidneys. They concluded that, caffeine as an agent for reducing irreversible side effects of cisplatin and discussed three involving mechanism of this effect, antioxidant, diuretic activities and blocking organic cation transporter. In this communication, I would like to highlight a few points about cisplatin nephrotoxicity. It was observed that estrogen attenuates defending property of erythropoietin against cisplatin-induced kidney toxicity in ovariectomized rats. Also by using L-arginine against cisplatin-induced nephrotoxicity, it was observed that L-arginine had ameliorative properties against cisplatin-induced renal toxicity in male rats, however it intensifies the induced injury in female rats, suggesting a gender related difference in rat model of cisplatin nephrotoxicity. Since, the status of sex in cisplatin-kidney toxicity is not well understood, Haghighi et al. conducted an experiment on rat model of cisplatin toxicity and observed that losartan as an angiotension receptor blocker may prevent cisplatin kidney toxicity in male rats, while it intensifies the cisplatin-tubular injury in female rats. It was concluded that, gender difference of cisplatin nephrotoxicity may be related to the renin-angiotensin system receptors in the kidneys. In addition, Nematabakhsh et al. recently reported that, vitamin E, vitamin C, or losartan have no ameliorative effects against cisplatin-renal toxicity in presence of estrogen in ovariectomized rat model of cisplatin toxicity, which is in agreement with previous studies. Hence, it is well established that there is a gender difference in the cisplatin-renal toxicity in rat model. While, it is well recognized that some conditions which lead to chronic kidney diseases are gender related, only few studies are there on gender difference in cisplatin-kidney toxicity. However, there is a need to investigate mechanisms which play role in cisplatin renal-toxicity especially on gender difference. To explore the factor of gender difference in cisplatin nephrotoxicity, further experimental rat model or clinical studies are required.

Conflict of interest
The author declared no competing interests.

References

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