Study effects of Ivermectin and interaction with supplements vitamin A and vitamin C on renal function tests in male wistar rat

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Objective: Ivermectin is an antiparasitic drug with a widespread activity on internal and external parasites. The purpose of this study was to study effects of Ivermectin on renal factors on adult male wistar rats.

Material and Method: For an invivo examination, a total of 25 male wistar rats of 6-8 weeks old and 150-200g, were equally divided into five experimental groups; control group; oral solution of Ivermectin; combination of Ivermectin and vitamin A; combination of Ivermectin and vitamin C; combination of Ivermectin, vitamin A and vitamin C; once a week for three weeks. At the end of the study, the rats were sacrificed and measurement of renal function tests were done.

Results: Findings of this study have shown that in group received pure Ivermectin and group treated with vitamin A or vitamin C the level of creatinine increased compared with control group. Agreeing with results, the level of creatinine in group treated with both vitamins A and vitamin C was equal to the control group also. As results shown, the level of urea increased in all groups comparing with control group. In addition, the level of urea in group received combination of vitamin A and vitamin C decreased in comparison with group treated with free Ivermectin significantly.

Conclusion: It can be concluded that the use of free Ivermectin has side effects on renal function tests in male rats, while consumption of Ivermectin in combination with antioxidant supplements like vitamin A and vitamin C, decreased changes due to Ivermectin side effects.

Keywords: Ivermectin, Creatinine, Urea, Vitamin A, Vitamin C

Recent Publications

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Biography

I was born in Mashhad, 1988. I got my diploma in 2006 from a grammar high school in Sirjan and have studied veterinary medicine (DVM) in Shahid Bahonar University of Kerman. Thereafter I was accepted for the residency course (DVSc) at the ***University of Tehran*** which holds the top rank in Iran. At the moment, I am a chief resident of veterinary surgery at the University of Tehran studying in the eighth semester and as a resident have finished all courses and successfully passed the board exam in the third year. I have published several articles for my academic achievement and spent an equine surgery traineeship in Italy as a valuable practical experience during my undergraduate. Although I do research in Veterinary Surgery and Anesthesiology, Equine Surgery and Orthopedics, currently in most recent publication collaborate with Department of Basic Science.

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