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## Evaluation of serum levels of vitamin C, vitamin E, selenium and the activity of glutathione peroxidase enzyme in the horses with strangles

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This study was conducted on horses with strangles for evaluating serum concentration of vitamin C (Vit C), vitamin E (Vit E), selenium (Sel) and glutathione peroxidase (GPx) in the horses with strangles. 60 horses confirmed on the basis of clinical and laboratory signs of strangles. Blood samples tacked from jugular vein and serum was separated. Sampling was performed from 52 healthy horses with similar ages, feed and condition. Serum concentrations of Vit E, Vit C, Se and serum's activity of GPx, enzyme was measured in the samples. Mean serum levels of selenium, vitamin E, vitamin C and serum glutathione peroxidase activity in horses with strangles were reduced and except vitamin C this reduction were significant. Patient's hemoglobin level was significantly increased. Evaluate the correlation between serum selenium and serum glutathione peroxidase activity, vitamin E and hemoglobin were found in horses with strangles showed that there is a positive correlation between serum selenium and those antioxidants and with increasing serum's selenium, those serum antioxidants increased, too. In patients this antioxidant serum marker in all three was significant ( $r: 0.945$ ,  $r: 0.561$  and  $r: 0.893$ ). In healthy horses correlation between selenium with glutathione peroxidase and hemoglobin was significant but with vitamin E was non-significant. In conclusion, in the horses with strangles, selenium, glutathione peroxidase and vitamin E reduced but supply of these antioxidants in the treatment and control of the disease is important.

### Biography

Ali Hassanpour is a Animal Internist. He has completed his PhD from Department of Clinical Sciences, Faculty of Veterinary Medicine, Tehran University, Tehran, Iran. He is an Associate Professor of Veterinary Medicine Faculty, Tabriz Branch, Islamic Azad University, Tabriz, Iran. He has published more than 40 papers in reputed journals.

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