Physiological relationship between thyroid hormones and serum biochemical profile in clinically healthy bactrian camel (Camelus bactrianus)

Mina Afsar¹; Saeed Nazifi²*; Vahid Ganjiani³; Eshagh Omidi³; Mojtaba Rahsepar⁴; Seyed Mohammad Bagher Hosseini⁴ and Seyed Mostafa Razavi⁵

¹ PhD Graduated of Clinical Pathology, Faculty of Veterinary Medicine, Shiraz University, Shiraz, Iran
² Professor, Department of Clinical Sciences, Faculty of Veterinary Medicine, Shiraz University, Shiraz, Iran
³ DVM Graduated, Faculty of Veterinary Medicine, Shiraz University, Shiraz, Iran
⁴ Laboratory Expert, Department of Clinical Sciences, Faculty of Veterinary Medicine, Shiraz University, Shiraz, Iran
⁵ Professor, Department of Pathobiology, Faculty of Veterinary Medicine, Shiraz University, Shiraz, Iran

Received: 06.07.2019 Accepted: 08.12.2019

Abstract
To evaluate both thyroid hormones status in different ages and sexes of Bactrian camel (Camelus bactrianus) and the correlations between these hormones and some biochemical parameters, such as electrolytes, lipids, glucose, BUN, and creatinine, these parameters were measured in twenty-six adult camels. The camels in two sexes (male= 18 and female= 8), aged between 2 and 11 years old (2-4 years old= 8, 5-8 years old= 9, and 9-11 years old= 9) were chosen for this study. Significant differences were detected for the thyroid hormones between the two sexes and among the different age groups of camels. Also, there were significant correlations between these hormones and phosphorus, Fe, Na, K, Mg, cholesterol, triglyceride, LDL, HDL, urea, creatinine, and glucose. The cause of these findings and some contradictory findings regarding the relation between serum thyroid hormones, triglyceride and cholesterol are not clear and could be due to the effect of some factors such as breed, geography and diet on serum profiles of sampled groups. More research is needed to evaluate these parameters in Camelus bactrianus.

Key words: Thyroid hormones, Biochemical parameters, Bactrian camel (Camelus bactrianus)

* Corresponding Author: Saeed Nazifi, Professor, Department of Clinical Sciences, Faculty of Veterinary Medicine, Shiraz University, Shiraz, Iran, E-mail: nazifi@shirazu.ac.ir

© 2020 by the authors. Licensee SCU, Ahvaz, Iran. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0 license) (http://creativecommons.org/licenses/by-nc/4.0/).
References


